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<110> diaDexus, Inc.
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       Turner, Leah R.
       Sun, Yongming
       Tam, Albert

<120> Compositions, Splice Variants and Methods Relating to Cancer Specific Genes and Proteins

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<151> 2003-04-11

<150> US 60/484,333
<151> 2003-07-01

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ccgtgtctag gagctggagg ttatgccgac aatgacatcg gagccgtctc aaccacaggg    780

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<212> DNA
<213> Homo sapien

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tctcaaccct tccttgtttt caggaaagac ggtagaagag gctgcggacc tatcgttggg   420

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<210> 13
<211> 588
<212> DNA
<213> Homo sapien

<400> 13

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tccacgtacc agttgaactt gacctcaggg tcttcgtggc tcacgtccac caccacgcac      420

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<210> 14
<211> 4146
<212> DNA
<213> Homo sapien

<400> 14

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<212>   DNA
<213>   Homo sapien
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<400> 15

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agcacaattc taaagttaaa cacaaaaga agcactataa accaagttca cacaagctga     240

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tcgttactca gaagcaaatt tgtgttacac tggaagtgac ctatgcactg ttttgtaaga     780

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gaaaacagaa atgtgcaggt taataatatt tttttaatag tgtgggagga cagagttaga     960

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tctgatgctt ttgattttct ctcaatttag catttgcttt tggttttttt ctctatttag    1920

cattctgtta aggcacaaaa actatgtact gtatgggaaa tgttgtaaat attacctttt    1980

ccacatttta aacagacaac tttgaataca aaaactttgt tttgtgtgat cttttcatta    2040

ataaaattat ctttgtataa gaa                                            2063
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<210>  16
<211>  634
<212>  DNA
<213>  Homo sapien

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tgctatggtg ttcttcaaga aagtttctca aaacagggag tacttcaaga tcaccctcta    360

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tctgggcctc cctgaaaacc acatcgtctt ccctgtccca atcgaccagt gtatcgacgg    480

ctgagtgcac aggtgccgcc agctgccgca ccagcccgaa caccattgag ggagctggga    540

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<211>  1229
<212>  DNA
<213>  Homo sapien

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cattacacac accctgggtc ttcatatgtg gccgccaggt aggagcatca cagtcaagct    180

acgggagaaa acagtttcca ggaaactgga aatgaacggc ccgagtgctt ccaggggct     240

catctgtggg aagtataatg gaatgtgctt acaagggcca gcaggagtgc ctggtcgaga    300

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<211> 1005
<212> DNA
<213> Homo sapien

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<223> n=a, c, g or t


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cccagacacc cctacgcgta ttcagggcgt tgtggtcccg cccttgttag gctgtccacc    180
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tccggagtaa gaaggcagtg ctttccatca ccactggtgg cagtggctcc atgtactctc    780

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<212>   DNA
<213>   Homo sapien

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caacaaaaac agaccagaag attaccaagg tggcagaact ggtgaagcca ttgtagatgc    480

tgcgctgagt gctctgcgcc agctcgtgaa ggatcgcctc gggggacgga gcggaggata    540

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agacgacagc tttgataaga atgttctgga cagtgaagat gtttggatgg ttgagttcta    660

tgctccttgg tgtggacact gcaaaaacct agagccagag tgggctgccg cagcttcaga    720

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gaccgcgttg gggattggag ggtttgggta ccccgccatg gccgccatca atgcacgcaa   1200
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<212>  DNA
<213>  Homo sapien

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tgtgatgatg gggacctatg gaacctact ctcattagta ggtgaatggt taagcaaact     180

gtggtacatc cataccatgg atacgactc aacaatcaaa aggaactgcc cagacttcac     240

cacgatgcaa tatatgcatg taagaaatct gcacttatac cccctaaata tataaaacat    300

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acattcttga aatgacaaaa ttacaaagat ggaagacaga acagtggtag ccacaggttg    480
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gcatataatt gtctaaaatg acattttctt caagagttat ctacagttta aagctcactt    660

ttatgaagtg tcacatccat caccatttta agagacataa aatcatgaaa agatatcacc    720

agaagctacg taaacatttc agctaagggt aaagagaaag ttaagagtgt tttcacaagg    780

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<210> 21
<211> 308
<212> DNA
<213> Homo sapien

<400> 21
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<210> 22
<211> 4633
<212> DNA
<213> Homo sapien

<400> 22
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gagattttcg aaatttaaga aagatggaac tgctcttgaa agtgtcctgg gatgcactta   2460

ggcaaactca agcactgcat caaaggcttc tattagagat ggaagctatc cccaaagatg   2520
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ctcagcaaaa atacaccaac attgttaaag aaatgaaagc aaaggatctt gaaatcagga   2820

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agtaaggtaa ccacaattag tcagcaacag agtacaacag ggtttctatt tacccaccaa   4380
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ttgtagtagg caaggtgcta taaaaatgca ctaaaaataa atctgttctc aatgaagtac    4560

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<211> 972
<212> DNA
<213> Homo sapien

<400> 23
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ggccaggctt ctaggagatg gctccaggaa ggcggccaag aatgtgagtg caaagattgg    180

ttcctgagag ccccgagaag aaaattcatg acagtgtctg ggctgccaaa gaagcagtgc    240

ccctgtgatc atttcaaggg caatgtgaag aaaacaagac accaaaggca ccacagaaag    300

ccaaacaagc attccagagc ctgccagcaa tttctcaaac aatgtcagct aagaagcttt    360

gctctgcctt tgtaggagct ctgagcgccc actcttccaa ttaaacattc tcagccaaga    420

agacagtgag cacacctacc agacactctt cttctcccac ctcactctcc cactgtaccc    480

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cttaaatgca atcaggaaag tagcaaacag aagtcaataa atatttttaa atgtcacaga    720

tcaaaattgt ttccttcaaa tggggtctgc caattcacaa ccagatgacc cattttaccc    780

tattcactgc agactgaatc cagattctac acatacttat ccccaccaag accctcactc    840

tgtctccatt ggcctacttg ttcatctttc actcattcga caaatctttc tgaggtaaga    900

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aatataggtt ta                                                        972
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<211> 942
<212> DNA
<213> Homo sapien

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acagtgtctg ggctgccaaa gaagcagtgc ccctgtgatc atttcaaggg caatgtgaag    240

aaaacaagac accaaaggca ccacagaaag ccaaacaagc attccagagc ctgccagcaa    300

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acatacttat ccccaccaag accctcactc tgtctccatt ggcctacttg ttcatctttc    840

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<213>   Homo sapien

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gtctgggctg ccaaagaagc agtgcccctg tgatcatttc aagggcaatg tgaagaaaac    180

aagacaccaa aggcaccaca gaaagccaaa caagcattcc agagcctgcc agcaatttct    240

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tccaattaaa cattctcagc caagaagaca gtgagcacac ctaccagaca ctcttcttct    360

cccacctcac tctcccactg tacccacccc taaatcattc cagtgctctc aaaaagcatg    420

tttttcaaga tcattttgtt tgttgctctc tctagtgtct tcttctctcg tcagtcttag    480

cctgtgccct ccccttaccc aggcttaggc ttaattacct gaaagattcc aggaaactgt    540

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aataaatatt tttaaatgtc acagatcaaa attgtttcct tcaaatgggg tctgccaatt    660

cacaaccaga tgacccattt taccctattc actgcagact gaatccagat tctacacata    720
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cttatcccca ccaagaccct cactctgtct ccattggcct acttgttcat ctttcactca      780

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gacctctccc ctttgggaga gaaaaactgt ctgggagctt gacaaaggca tgcaggagag      120

aacaggagca gccacagcca ggagggagag ccttccccaa gcaaacaatc cagagcagct      180

gtgcaaacaa cggtgcataa atgaggcctc ctggaccatg aagcgagtcc tgagctgcgt      240

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ggtggactgc ggctacccc atgtcacccc caaggagtgc aacaaccggg gctgctgctt       480

tgactccagg atccctggag tgccttggtg tttcaagccc ctgcaggaag cagaatgcac      540

cttctgaggc acctccagct gccccggcc ggggatgcg aggctcggag cacccttgcc       600

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agcgcttctg ctgaaagttc atatctggag cctgatgtct taacgaataa aggtcccatg      720

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<212>  DNA
<213>  Homo sapien

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aacaggagca gccacagcca ggagggagag ccttccccaa gcaaacaatc cagagcagct      180

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<212>   DNA
<213>   Homo sapien

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<223>   n=a, c, g or t


<220>
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53

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tggaatacaa gtttctgata ccactgcact gtctgagaat ttccwaaact ttaatgaact     180

aactgacagc ttcatgaaac tgtccaccaa gatcaagcag agaaaatawt aatttatggg     240

actwaatgra ctwatgwgar grtrctattt tcatcaattt tttatcttga aattttgctt     300

gattctttaa tatgtcttgt nntcccagat ttcagcgaaa cttttttct ntttaanngc      360

tatccacagc ttacangcaa tttggataaa atatactttn tgtgaacana aaattggaga     420

catttacatn tttctcctct atgtgngtcg ctccaagaca nttgggaaac tattcatnga     480

atatttatat tcgtatggta atatagctta ttgcacaagt tcaataaaaa tctgctcttt     540

gtatgacaga atacatttga aaacattggt tatattacca agactttgac tagaatgtcg     600

tatttgagga tataaaccca taggtaataa acccacaggt actacaaaca aagtctgaag     660

tcagccttgg tttggcttcc tagtgtcact taaacttcta aaaagttaat ctgaga         716


<210>  40
<211>  467
<212>  DNA
<213>  Homo sapien

<400>  40
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agttggkgta acattaaacc ataacctaat cagkgtgtyc actatgcttc cacagtagcc     120

agtcttctca cacttcttct ggtttcaagt ctcaagggcc tgayagacag aagggsytgg     180

agatttktkt tctttayaat tcagtcttca gcaasttgag agctttcttc atgtkgtcra     240

gcaacagagc tgtatctgsa ggttcgtaag catagagacg attagaatat cttccagtga     300

tatcggctct aactgtcaga gatgggtcaa crragacata atcctgggga catactggcc     360

atcaggagaa aggtgttgtc agttgtttca taaaccagat tgaggaggac aaactgctct     420
```

```
gccaatttct ggatttcttt attttcagca aacactttct ttaaagc                467
```

<210> 41
<211> 997
<212> DNA
<213> Homo sapien

<400> 41
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gagcggccgc ccgggcaggt ctagccgccg actcacacaa ggcaggtggg tgaggaaatc     60

cagagttgcc atggagaaaa ttccagtgtc agcattcttg ctccttgtgg ccctctccta    120

cactctggcc agagatacca cagtcaaacc tggagccaaa aaggacacaa aggactctcg    180

acccaaaact gccccagacc ctctccagag gttggggtga ccaactcatc tggactcaga    240

catatgaaga agctctatat aaatccaaga caagcaacaa acccttgatg attattcatc    300

acttggatga gtgcccacac agtcaagctt ggagaaagt gtttgctgaa aataaagraa    360

tccyryaatt ggcagagcag wtkgtcctcc tcaatctggt ttatgaawcm actgacsaac    420

cctttctcct gatggccmgt atgtccccmg gattatgtwk gtwgacccat ctctgacmrt    480

twgagccgat wtcactggaw gatattcmaa mcgtctytrt gcttacgaac mtgcagatac    540

acgtcatcta gaagattgac aacaatcttc tgtgtgtcag gccgttgaga cttggaatca    600

agaatgaagt gtggcgaaga ctggttagtg tggaagatat agtgtagcac actgattagg    660

ttatggtaaa atgtgtacaa taactattat taagaaaaag agtggatgac atttgggagc    720

aagtgtacta tgttgtgata gaccaattag ttgttattac gtgccataag tgaagccgat    780

gattattcga aaaaatacaa ttatattgtt ctggggggtg gaactacact aaagaacggc    840

gcgctgctca aaaatttcca gacaagggcc caatctttgg acaaccaacc taatgacaaa    900

ccgggccccg aatgagcaca taatacaata agaaggccgc gttaactagt acctggaaaa    960

cgcgacagcg ttgggcaagc ccaccgggtg cgagggc                            997
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<210> 42
<211> 1018
<212> DNA
<213> Homo sapien

<400> 42
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aggcaggtgg gtgaggaaat ccagagttgc catggagaaa attccagtgt cagcattctt    120

gctccttgtg gccctctcct acactctggc cagagatacc acagtcaaac ctggagccaa    180

aaaggacaca aaggactctc gacccaaaac tgccccagac cctctccaga ggttggggtg    240

accaactcat ctggactcag acatatgaag aagctctata taaatccaag acaagcaaca    300

aacccttgat gattattcat cacttggatg agtgcccaca cagtcaagct ttggagaaag    360
```

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tgtttgctga aaataaagra atccyryaat tggcagagca gwtkgtcctc ctcaatctgg      420
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kgtwgaccoa tctctgacmr ttwgagccga twtcactgga wgatattcma amcgtctytr      540
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ggccgttgag acttggaatc aagaatgaag tgtggcgaag actggttagt gtggaagata      660
tagtgtagca cactgattag gttatggtaa aatgtgtaca ataactatta ttaagaaaaa      720
gagtggatga catttgggag caagtgtact atgttgtgat agaccaatta gttgttatta      780
cgtgccataa gtgaagccga tgattattcg aaaaaataca attatattgt tctggggggt      840
ggaactacac taaagaacgg cgcgctgctc aaaaatttcc agacaagggc ccaatctttg      900
gacaaccaac ctaatgacaa accgggcccc gaatgagcac ataatacaat aagaaggccg      960
cgttaactag tacctggaaa acgcgacagc gttgggcaag cccaccgggt gcgagggc     1018
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<210>   43
<211>   1010
<212>   DNA
<213>   Homo sapien

<400>   43
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gggtgaggaa atccagagtt gccatggaga aaattccagt gtcagcattc ttgctccttg      120
tggccctctc ctacactctg gccagagata ccacagtcaa acctggagcc aaaaaggaca      180
caaaggactc tcgacccaaa actgccccag accctctcca gaggttgggg tgaccaactc      240
atctggactc agacatatga agaagctcta tataaatcca agacaagcaa caaacccttg      300
atgattattc atcacttgga tgagtgccca cacagtcaag ctttggagaa agtgtttgct      360
gaaaataaag raatccyrya attggcagag cagwtkgtcc tcctcaatct ggtttatgaa      420
wcmactgacs aacccttct cctgatggcc mgtatgtccc cmggattatg twkgtwgacc      480
catctctgac mrttwgagcc gatwtcactg gawgatattc maamcgtcty trtgcttacg      540
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agacttggaa tcaagaatga agtgtggcga agactggtta gtgtggaaga tatagtgtag      660
cacactgatt aggttatggt aaaatgtgta caataactat tattaagaaa aagagtggat      720
gacatttggg agcaagtgta ctatgttgtg atagaccaat tagttgttat tacgtgccat      780
aagtgaagcc gatgattatt cgaaaaaata caattatatt gttctggggg gtggaactac      840
actaaagaac ggcgcgctgc tcaaaaattt ccagacaagg gcccaatctt tggacaacca      900
acctaatgac aaaccgggcc cgaatgagc acataataca ataagaaggc cgcgttaact      960
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agtacctgga aaacgcgaca gcgttgggca agcccaccgg gtgcgagggc   1010

<210> 44
<211> 376
<212> DNA
<213> Homo sapien

<400> 44
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acccttgatg attattcatc acttggatga gtgcccacac agtcaagctt tggagaaagt   120

gtttgctgaa aataaagraa tccyryaatt ggcagagcag wtkgtcctcc tcaatctggt   180

ttatgaawcm actgacsaac cctttctcct gatggccmgt atgtccccmg gattatgtwk   240

gtwgacccat ctctgacmrt twgagccgat wtcactggaw gatattcmaa mcgtctytrt   300

gcttacgaac mtgcagatac agctctgttg cttgacaaac atgaagaaag ctttcaagtt   360

gctgaagact gaattg   376

<210> 45
<211> 917
<212> DNA
<213> Homo sapien

<400> 45
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acctcacaca tggaaagcga ggagttgaat ggtgcataca aggccatccc cgttgcccag   120

gacctgaacg cgccttctga ttgggacagc cgtgggaagg acagttatga aacgagtcag   180

ctggatgacc agagtgctga aacccacagc cacaagcagt ccagattata taagcggaaa   240

gcyaatgatg agagcaatga gcattccgat gtgattgata gtcaggaact ttccaaagtc   300

agccgtgaat tccacagcca tgaatttcac agccatgaag atatgctggt tgtagacccc   360

caaaagtaag gaagaagata aacacctgaa atttcgtatt tctcatgaat tagatagtgc   420

atcttctgag gtcaattaaa aggagaaaaa atacaatttc tcactttgca tttagtcaaa   480

agaaaaaatg ctttatagca aaatgaaaga gaacatgaaa tgcttctttc tcagtttatt   540

ggttgaatgt gtatctattt gagtctggaa ataactaatg tgtttgataa ttagtttagt   600

ttgtggcttc atggaaactc cctgtaaact aaaagcttca gcggtaaatc catgggccca   660

ttagcctgtt tttccctggt tgtggaaaat tggtttaatc cgctccaaca aattccaccc   720

atttcggacg ccgaacaaac acacttaggg ttaccgcctg ggggccacag caatagaaac   780

acccccaata tgctgacaaa ggcccaccat tcgacagaga aaaaatccac gatgataaaa   840

acagcaaccc gagagaaagc ggtagaaaac cgcgaacagc cacgcccaga atagcacact   900

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tcctggcgag aagaaaa                                              917
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<210>  46
<211>  4163
<212>  DNA
<213>  Homo sapien

<400>  46
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tattcagcaa gcacatagtg gagcaaatgg tggctttcat tgggctggag acaatggcg      180
cactgcaacc tccacctccc agtgctgtcc ccggcatagg tccatctctg cagaagccat     240
ttcaggagta cctggaggct caacggcaga agcttcacca caaaagcgaa atgggcacac     300
cacaggtaag actttaatcc ggtttcttct ccctctgggg aagtttcggg ctgaaattac     360
attcacagct ctcactcaca ttttaggca aataagtgaa gttggtttgc cagtgttcct      420
tgacagaagt tgagcgtctg tgtatgctct actgggaaat ttgtctttgt cttagactag     480
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tcccaagtgg attaaaaagt taaaacttac agcataacaa agtattagac ttactgaggt     660
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aattttttaa taaaccaagg ctcttaccat agctgaactt taaaacttag actgtctttt     780
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agcactgttt tttttaatgg ccttgcactc ttcttatgga cctttgctgc cctcagttga    1260
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tgagtttaat caaagagttt attcttaggt cctagtagaa gagctaacct cacactcatc    1440
ccattctaaa ctatgtgatt caacactgat tttacatcca acaaagtgaa atcttgatag    1500
ttgggtgtaa aaaggagagt aatggagatt tcagagtagt tggggttgct tactttttcat    1560
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ttttaattct ttaggttttg taagttacac acttcaagca ttatagatga tcctcttttt   1620

actactgaac taatgaagcc ttttttcattg cattgttctg catttatttc tacagggaga   1680

aaactggttg tcctggatgt ttgaaaagtt ggtcgttgtc atggtgtgtt acttcatcct   1740

atctatcatt aactccatgg cacaaagtta tgccaaacga atccagcagc ggttgaactc   1800

agaggagaaa actaaataag tagagaaagt tttaaactgc agaaattgga gtggatgggt   1860

tctgccttaa attgggagga ctccaagccg ggaaggaaaa ttccctttttc caacctgtat   1920

caatttttac aacttttttc ctgaaagcag tttagtccat actttgcact gacatacttt   1980

ttccttctgt gctaaggtaa ggtatccacc ctcgatgcaa tccaccttgt gttttcttag   2040

ggtggaatgt gatgttcagc agcaaacttg caacagactg gccttctgtt tgttactttc   2100

aaaaggccca catgatacaa ttagagaatt cccaccgcac aaaaaaagtt cctaagtatg   2160

ttaaatatgt caagcttttt aggcttgtca caaatgattg ctttgttttc ctaagtcatc   2220

aaaatgtata taaattatct agattggata acagtcttgc atgtttatca tgttacaatt   2280

taatattcca tcctgcccaa cccttcctct cccatcctca aaaagggcc attttatgat   2340

gcattgcaca ccctctgggg aaattgatct ttaaattttg agacagtata aggaaaatct   2400

ggttggtgtc ttacaagtga gctgacacca ttttttattc tgtgtattta gaatgaagtc   2460

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cgttttgatt ttttactttt agcttatacc agctgaatgg cagccttgcc taatccacct   2580

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cctggggatt tcttggtttg tgaaaacagg agaggagaaa tatctcatac aagtgaaagg   2760

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cagaaatgcc tgggtttttt tggttgtttt ttgtttttgt tttttatca aatcctgcct   3120

gactgtctgc ttgtttttgcc taccatcgtg acatctccat ggctgtacca ccttgtcggg   3180

tagcttatca gactgatgtt gactgttgaa tctcatggca acaccagtcg atgggctgtc   3240

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cagcatcatt gtttataatc agaaactctg gtccttctgt ctggtggcac ttagagtctt   3360

ttgtgccata atgcagcagt atggagggag gattttatgg agaaatgggg atagtcttca   3420
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tgaccacaaa taaataaagg aaaactaagc tgcattgtgg gttttgaaaa ggttattata   3480

cttcttaaca attctttttt tcagggactt ttctagctgt atgactgtta cttgaccttc   3540

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acctgcattt tatttggtgt ttgtctgaag aaaggaaaga ggaaagcaaa tacgaattgt   3720

actatttgta ccaaatcttt gggattcatt ggcaaataat ttcagtgtgg tgtattatta   3780

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ttctttcctc ttttaagtgt tcagctgtgg catgctcaga ggttcctgct ggattccagc   3960

tggagcggtg tgataccctt ctttttcagc tgttcgtgcc ttcctttctt gtatccacca   4020

aagtggagac aaatacatga tctcaaagat acacagtacc tacttaattc cagctgatgg   4080

gagaccaaag aatttgcaag tggatggttt ggtatcactg taaataaaaa gagggcctgg   4140

gaattcttgc gattccatct cta                                           4163
```

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<210>   47
<211>   464
<212>   DNA
<213>   Homo sapien

<400>   47
ggtgactctg aggatccccg attcgatccg gacgggcccg gctcttcgac gtgcgctctc     60

gcgaggaggc ggcagctggg accatcccag gggcgctcaa catcccggtg tccgagttgg    120

agagtgctct gcagatggag ccagctgcct tccaggcttt atattctgct gagaagccaa    180

agctggaaga tgagcatctc gttttcttct gtcagatggg caagcggggc ctccaggcca    240

cgcagctggc ccggagtctt ggatacactg gggctcgcaa ctacgctgga gcctatagag    300

aatggttgga gaaagagagt taggcaggag gcagcttact gattgccacc ccctggcccc    360

ttaatggcca ccttaactaa gggtgtgaac gggctgactt ggtgaattgg gcaactcctt    420

atagtgttgt gcacacatcg catacgggga ctcctctatg agtc                     464
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<210>   48
<211>   806
<212>   DNA
<213>   Homo sapien

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acgtgggctc cccagacatc agggcctggg tcatgccacc cacctccacc aagctgtctt    120
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  ctgctgggtg gccgagggca tgagggcaga caccacgtgt agccctaggg tggcagtggg      180

  cactgcagca gaggggctgt tgctcagagt ccacatgtgg gggaagggag atgttgcagg      240

  cgccgagagg gcgggccagg gccgcactcc ggagactcgc ggttgctacg cgcaccatgg      300

  ctggaggctg tcgcgcccct tcctcagcgc ccacggtctc gcttcctgaa ctccgttcac      360

  tcctagcctc cggacgggcc cggctcttcg acgtgcgctc tcgcgaggag cggcagctg       420

  ggaccatccc aggggcgctc aacatcccgg tgtccgagtt ggagagtgct ctgcagatgg      480

  agccagctgc cttccaggct ttatattctg ctgagaagcc aaagctggaa gatgagcatc      540

  tcgttttctt ctgtcagatg ggcaagcggg gcctccaggc cacgcagctg gcccggagtc      600

  ttggatacac tggggctcgc aactacgctg agcctatag agaatggttg gagaaagaga       660

  gttaggcagg aggcagctta ctgattgcca ccccctggcc ccttaatggc caccttaact      720

  aagggtgtga cgggctgac ttggtgaatt gggcaactcc ttatagtgtt gtgcacacat       780

  cgcatacggg gactcctcta tgagtc                                           806
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<210> 49
<211> 743
<212> DNA
<213> Homo sapien

<400> 49

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  gggaaaagct ctgtgccatc ctcaaattgc aatggcccag gtcccaccag ggacacctag       60

  acgtgggctc cccagacatc agggcctggg tcatgccacc cacctccacc aagctgtctt      120

  ctgctgggtg gccgagggca tgagggcaga caccacgtgt agccctaggg tggcagtggg      180

  cactgcagca gaggggctgt tgctcagagt ccacatgtgg gggaagggag atgttgcagg      240

  cgccgagagg gcgggccagg gccgcactcc ggagactcgc ggttgctacg cgcaccatgg      300

  ctggagccgg acgggcccgg ctcttcgacg tgcgctctcg cgaggaggcg gcagctggga      360

  ccatcccagg ggcgctcaac atcccggtgt ccgagttgga gagtgctctg cagatggagc      420

  cagctgcctt ccaggcttta tattctgctg agaagccaaa gctggaagat gagcatctcg      480

  ttttcttctg tcagatgggc aagcggggcc tccaggccac gcagctggcc cggagtcttg      540

  gatacactgg ggctcgcaac tacgctggag cctatagaga atggttggag aaagagagtt      600

  aggcaggagg cagcttactg attgccaccc cctggcccct taatggccac cttaactaag      660

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  atacggggac tcctctatga gtc                                              743
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<210> 50
<211> 461
<212> DNA

<210> Homo sapien

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aggaggcggc agctgggacc atcccagggg cgctcaacat cccggtgtcc gagttggaga   120

gtgctctgca gatggagcca gctgccttcc aggctttata ttctgctgag aagccaaagc   180

tggaagatga gcatctcgtt ttcttctgtc agatgggcaa gcggggcctc caggccacgc   240

agctggcccg gagtcttgga tacactgggg ctcgcaacta cgctggagcc tatagagaat   300

ggttggagaa agagagttag gcaggaggca gcttactgat tgccacccccc tggcccctta   360

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gtgttgtgca cacatcgcat acggggactc ctctatgagt c   461

<210>   51
<211>   993
<212>   DNA
<213>   Homo sapien

<400>   51
gggaaaagct ctgtgccatc ctcaaattgc aatggcccag gtcccaccag ggacacctag   60

acgtgggctc cccagacatc agggcctggg tcatgccacc cacctccacc aagctgtctt   120

ctgctgggtg gccgagggca tgagggcaga caccacgtgt agccctaggg tggcagtggg   180

cactgcagca gaggggctgt tgctcagagt ccacatgtgg gggaagggag atgttgcagg   240

cgccgagagg gcgggccagg gccgcactcc ggagactcgc ggttgctacg cgcaccatgg   300

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ctgcttcatt aacatagagg ttttggattt ttttctcttg tggtttgttt tttaagtgga   7200

ttggcagact ccttgttgct taagagtggc tttctaggca ggccactggc atctgaattc   7260

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<213>   Homo sapien

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gactggaagt catcgggcag aggtctcaca gcagccaagg aacctggggc ccgctcctcc    180

cccctccagg ccatgaggat tctgcagtta atcctgcttg ctctggcaac agggcttgta    240

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cacagcccat  caccctccat  ttccacttgg  tgtttggttc  ctgttcactc  tgttaataag  1020

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<213>  Homo sapien

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gttcacctgg  ggcagcacaa  cctccagaag  gaggagggct  gtgagcagac  ccggacagcc   180

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ttctctgttg  tatccccagc  cccaaagaca  gctcctggcc  atatatcaag  gtttcaataa   960

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<213>   Homo sapien

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ccacagccca tcaccctcca tttccacttg gtgtttggtt cctgttcact ctgttaataa     180

gaaaccctaa gccaagaccc tctacgaaca ttctttgggc ctcctggact acaggagatg     240

ctgtcactta ataatcaacc tggggttcga aatcagtgag acctggattc aaattctgcc     300

ttgaaatatt gtgactctgg gaatgacaac acctggtttg ttctctgttg tatccccagc     360

cccaaagaca gctcctggcc atatatcaag gtttcaataa atatttgcta aatgagtgaa     420


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<212>   DNA
<213>   Homo sapien

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tgcgggcgcg ggcagccacc caagcctgct ggctgcggcc ccctctcggc caggcattgg     240

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cacacagggc ccggccacac ccagcggccc cccgcacagc cacccgtggg gtgctgccct     360

tatgcccggc gccgggcacc aactccatgt ttggtgtttg tctgtgtttg ttttttcaaga     420

aatgattcaa attgctgctt ggattttgaa atttactgta actgtcagtg tacacgtctg     480

gaccccgttt cattttttaca ccaatttggt aaaaatgctg ctctcagcct cccacaatta    540

aaccgcatgt gatctccaaa aaaaaaaaaa gaaaaagaaa agaaaag                   587


<210>   63
<211>   1940
<212>   DNA
<213>   Homo sapien

<400>   63
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aattgctcca aatgccactt tttcagaacc tactagacaa gtggatctct ccagtctccc      180
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ctaggaccca tgcacagtgg gtgccacagt gctgctcatg aggctgctgt cgcaggagtg    300

gggaaggagg aagacctggg cagaaaacag tgcccccagt gtgtgccccc ctgcacctcc    360

cccgggtctg gaaaagcttc cttttagagg aagccaggaa gtcaaatggc ccacacaact    420

cctctgcaga gggaggcccg ggacctcctt ttcattctct gttcatcttt acacatttcc    480

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gactcaccag agaataacag aggagctaca aaagtatggt gtcgacatac cggaagacga    600

aaatgaaaaa atgttcttcc tgatagataa aattaatgcc tttaatcagg acatcactgc    660

tctcatgcaa ggagaggaaa ctgtagggga ggaagacatt cggctgttta ccagactccg    720

acacgagttc cacaaatgga gtacaataat tgaaaacaat tttcaagaag gccataaaat    780

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ggctgtggat atgctacaca ccgtgacgga tatggtccgg cttgctttca cagatgtttc    960

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gccccgtaga cgtgcacgca cactgtctgc ccccgttccc gggtagccac tggactgacg   1560

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agatgcacat gagctggcgg gattgaagga tgctgtcttc gtactgggaa agggatttc    1740

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catgctgaac atcacagctt atttcctcat ttttataatg tcccttcaca aacccagtgt    1860

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<211>  801
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<213>  Homo sapien

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actgtcagaa tgaggagatc ctgaacagtc tcaagtatgt ccgtcctggg ggtggatacc     180

agcccacctt caccccttgtc caaaaatgtg aggtgaatgg gcagaacgag catcctgtct     240

tcgcctacct gaaggacaag ctcccctacc cttatgatga cccatttttcc ctcatgaccg     300

atcccaagct catcatttgg agccctgtgc gccgctcaga tgtggcctgg aactttgaga     360

agttcctcat agggccggag ggagagccct tccgacgcta cagccgcacc ttcccaacca     420

tcaacattga gcctgacatc aagcgcctcc ttaaagttgc catatagatg tgaactgctc     480

aacacacaga tctcctactc catccagtcc tgaggagcct taggatgcag catgccttca     540

ggagacactg ctggacctca gcattcccctt gatatcagtc cccttcactg cagagccttg     600

ccttttcccct ctgcctgttt cctttttcctc tcccaacccct ctggttggtg attcaacttg     660

ggctccaaga cttgggtaag ctctgggcct tcacagaatg atggcacctt cctaaacccct     720

catgggtggt gtctgagagg cgtgaagggc ctggagccac tctgctagaa gagaccaata     780

aagggcaggt gtggaaacgg c                                               801


<210>  65
<211>  920
<212>  DNA
<213>  Homo sapien

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cctctaatag gctcataagt gggctcaggc ctctctgcgg ggctcactct gcgcttcacc     180

atggctttca ttgccaagtc cttctatgac ctcagtgcca tcagcctgga tgggggagaa     240

ctgtcagaat gaggagatcc tgaacagtct caagtatgtc cgtcctgggg gtggatacca     300

gcccaccttc acccttgtcc aaaaatgtga ggtgaatggg cagaacgagc atcctgtctt     360

cgcctacctg aaggacaagc tcccctaccc ttatgatgac ccatttttccc tcatgaccga     420

tcccaagctc atcatttgga gccctgtgcg ccgctcagat gtggcctgga actttgagaa     480

gttcctcata gggccggagg gagagccctt ccgacgctac agccgcacct tcccaaccat     540

caacattgag cctgacatca agcgcctcct taaagttgcc atatagatgt gaactgctca     600
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acacacagat ctcctactcc atccagtcct gaggagcctt aggatgcagc atgccttcag    660

gagacactgc tggacctcag cattcccttg atatcagtcc ccttcactgc agagccttgc    720

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gctccaagac ttgggtaagc tctgggcctt cacagaatga tggcaccttc ctaaaccctc    840

atgggtggtg tctgagaggc gtgaagggcc tggagccact ctgctagaag agaccaataa    900

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<211>  922
<212>  DNA
<213>  Homo sapien

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cacagtgaaa aagaatgacc ctggggaggg agtgtaggag ggtgaaagag tttcatgttg    180

tggatctttc tcttccccca cccactgtcc acgcactttg tcttttttct ccctaggag     240

aactgtcaga atgaggagat cctgaacagt ctcaagtatg tccgtcctgg gggtggatac    300

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aaagggcagg tgtggaaacg gc                                             922
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<211>  1326
<212>  DNA
<213>  Homo sapien

<400>  67
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ggtccctaaa gcaagaagga agaccgagaa aaggaagcgg aggagaatcc cggggcatac    120
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gcttgacaca cacgcataca aaaagagctt tagtctcgaa agaggaatta ccgaagtgtc      180

gagagaggaa ttttaagaag tttacaactc cgtcttcgcc ctaaacgcac gctgacccgg      240

aaagtaatct cctgaagcta ggtcaaaggc gggggttcta cggatgccgg aaggagggtg      300

cgcgcccatc cttttagcac cgcgagaggc gccggtgttt cgagccgtgg caccggcatc      360

ggctgacact gctgcctcca gctagttatt cgtcctctt ccgttcttca ccectacacc      420

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accaacggaa tcttctcaga atggcaaaca gtatatcatt tcagaggagt taatttcaga      540

aggaaaatgg gtcaagcttg aaaaaacaac gtacatggat cctactggta aaactagaac      600

ttgggaatca gtgaaacgta caaccaggaa agagcagact gcggatggtg tcgcggtcat      660

ccccgtgctg cagagaacac ttcactatga gtgtatcgtt ctggtgaaac agttccgacc      720

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atgttctcca gcggtctgta tggacccagg cttgtcaaac tgtactatac acatcgtgac      900

agtcaccatt aacggagatg atgccgaaaa cgcaaggccg aagccaaagc caggggatgg      960

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tagtcc                                                               1326
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<211>    759
<212>    DNA
<213>    Homo sapien

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aggacggaga cctcaccctg taccagtcca ataccatcct gcgtcacctg ggccgcaccc      240

ttgggctcta tgggaaggac cagcaggagg cagccctggt ggacatggtg aatgacggcg      300

tggaggacct ccgctgcaaa tacatctccc tcatctacac caactatgag gcgggcaagg      360
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atgactatgt gaaggcactg cccgggcaac tgaagccttt tgagaccctg ctgtcccaga    420

accagggagg caagaccttc attgtgggag accagatctc cttcgctgac tacaacctgc    480

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ctgagtacgt gaacctcccc atcaatggca acgggaaaca gtgagggttg gggggactct    660

gagcgggagg cagagtttgc cttcctttct ccaggaccaa taaaatttct aagagagcta    720

aaaaaaacaa aaaggggggac ggtataaaat ccctcagggg                         759
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<210> 69
<211> 539
<212> DNA
<213> Homo sapien

<400> 69
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ccagagctgg aaggaggagg tggtgaccgt ggagacgtgg caggagggct cactcaaagc    180

ctcctgccta tacgggcagc tccccaagtt ccaggacgga gacctcaccc tgtaccagtc    240

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ggcagccctg gtggacatgg tgaatgacgg cgtggaggac ctccgctgca aatacatctc    360

cctcatctac accaactatg aggcgggcaa ggatgactat gtgaaggcac tgcccgggca    420

actgaagcct tttgagaccc tgctgtccca gaaccaggga ggcaagacct tcattgtggg    480

agaccagatc tccttcgctg actacaaact ccgaamtcgg cggtaccgag ctcgattta    539
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<210> 70
<211> 1143
<212> DNA
<213> Homo sapien

<400> 70
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agacctcacc ctgtaccagt ccaataccat cctgcgtcac ctgggccgca cccttgggct    420
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ctatgggaag gaccagcagg aggcagcccт ggtggacatg gtgaatgacg gcgtggagga    480

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tgtgaaggca ctgcccgggc aactgaagcc ttttgagacc ctgctgtccc agaaccaggg    600

aggcaagacc ttcattgtgg gagaccagat ctccttcgct gactacaacc tgctggactt    660

gctgctgatc catgaggtcc tagcccctgg ctgcctggat gcgttccccc tgctctcagc    720

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cggcggcaca acaccctggc ggacgggacc cccccctaca tacggctacg gctcgccatc    1140

aac                                                                  1143
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<211>   1019
<212>   DNA
<213>   Homo sapien

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gggagcacac ctgtcttgga gggtctgcag tggaccttt ctcggcccca tcgcaggtcg    240

ggttcgaggt cctgcccggg gctgcctgcc tccaggggcc gcctgttctc actgggctcc    300

gcagggggc aggtttccga ctcccggggc ttcttgtctt cgccaccatg ccgccctaca    360

ccgtggtcta tttcccagtt cgaggccgct gcgcggccct gcgcatgctg ctggcagatc    420

agggccagag ctggaaggag gaggtggtga ccgtggagac gtggcaggag ggctcactca    480

aagcctcctg cctatacggg cagctcccca agttccagga cggagacctc accctgtacc    540

agtccaatac catcctgcgt cacctgggcc gcacccttgg gctctatggg aaggaccagc    600

aggaggcagc cctggtggac atggtgaatg acggcgtgga ggacctccgc tgcaaataca    660

tctccctcat ctacaccaac tatgaggcgg gcaaggatga ctatgtgaag gcactgcccg    720

ggcaactgaa gcctttgag accctgctgt cccagaacca gggaggcaag accttcattg    780

tgggagacca gatctccttc gctgactaca acctgctgga cttgctgctg atccatgagg    840
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tcctagcccc tggctgcctg gatgcgttcc gcccaagctc aaggccttcc tggcctcccc    900

tgagtacgtg aacctcccca tcaatggcaa cgggaaacag tgagggttgg ggggactctg    960

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tggcgctggg ccgggccgtt cttggtccca gtggctggct gggtagcggc ccccttctg    180

gggagcacac ctgtcttgga gggtctgcag tgggaccttt ctcggcccca tcgcaggtcg    240

ggttcgaggt cctgcccggg gctgcctgcc tccaggggcc gcctgttctc actgggctcc    300

gcaggggggc aggtttccga ctcccggggc ttcttgtctt cgccaccatg ccgccctaca    360

ccgtggtcta tttcccagtt cgaggccgct gcgcggccct gcgcatgctg ctggcagatc    420

agggccagag ctggaaggag gaggtggtga ccgtggagac gtggcaggag ggctcactca    480

aagcctcctg cctatacggg cagctcccca gttccagga cggagacctc accctgtacc    540

agtccaatac catcctgcgt cacctgggcc gcaccttgg gctctatggg aaggaccagc    600

aggaggcagc cctggtggac atggtgaatg acggcgtgga ggacctccgc tgcaaataca    660

tctccctcat ctacaccaac tatgcccaag ctcaaggcct tcctggcctc ccctgagtac    720

gtgaacctcc ccatcaatgg caacgggaaa cagtgagggt tggggggact ctgagcggga    780

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gcncaggccc ggccctgctc cccaggcagc ccctaaagga ttctnctcag ggaggcacag   180

gccaggctgg atgnagacnt tcccaaaacc tgacaagatg tgcaggccga ggccggggcc   240

tggggctnc ctttgctccc agcccaggca atggatgtgc cagaaaggaa tattgcaggc   300

acttaaacgg gctcccaggg atttttaaac aaaaagcaaa ganctgttgc tncaaatcta   360

ttgcagacca agcaagcagg tttttatnaa tttttttat tagctgattg ttgttatttn   420

ttatatgcag gcctgagtct gcctgtgcgc cacatgcnca ggcttcagcc gctgtaatgg   480

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ttcgcatngc ctgatgggtg gagagctaag cgcgctgtcg agagnacttg cgngngcntc      540

acccagctaa tctgtagggc tggacctatg tcctaaggac acactaatcg aactatgaac      600

tacaaagcgt ctatcccagg aggtggctat ggccacccgt tctgctggcc tggatctccc      660

cactttaggg gtcaggctcc attaggattt gcccctttccc atctyttcct acccaaccac     720

tcaaattaat ctttytttac ctgagaccag ttgggagccc tggagtgcag ggaggaaagg      780

ggaagggcca gtttgggctg ccgggtttta gtttcctttg cactgagggc cccctatta      840

ccatgaaaaa agggcctgtg ggagcctgca aactccctgc tcaaaaaaac atggagactc      900

ctgccctgtt gtgtatarat gcaagatatt tatawatatt tttggttgtc aatattwaat     960

acmgmccta agttatagta tatttgggca agccmacttg twaatacccc ccctcmctcc      1020

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<223>  n=a, c, g or t


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<223>  n=a, c, g or t


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<223>  n=a, c, g or t


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ggaatccnng naagnggagt tgagtgaatc caggttgaag gcattcaagg tgnccctctn     180
ggatgtgttc cgggaagctc atgcgcagtc aatcggcatg aatcgcctca cagaatccat     240
caaccgggac agcgaagagc ccttctcttc agttgagatc caggctgctc tgagcaagat     300
gcaggatgac aatcaggtca tggtgtctga gggcatcatc tggnggggtgg ggggaggngt     360
ngngngtggn gnngggtngt gcngagagag tttgttctgt gtttcccacg cctctncgtg     420
acccaagtct ttgcctcgac tcccttnaca gtgttgaatt caantgnngg ngnggaatgt     480
tggtgntgan gntgngntcn ggannggtg gnccntttgg gaatgggtca tgaaggntgc     540
cntggggtgn ggaaagggg gncagnggn gnggacaatg actattgcat cttcattgca     600
aaagcactgg ctcatccgcc ctacttccca tcccacacaa acccaattgt aaataacata     660
tgacttctga gtactttgg gggcacaact gttttctgtt gctgtttttt tgttttgttt     720
ttttctcca gagcactttg gtctagacta ggctttgggt ggttccaatt ggtggagaga     780
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agctctgagg cacgtcatgc aggtcaagaa agctttcttt gcagtagcac cagttaaggt     840

gaatatgtat tgtatcacaa aacaaaccca atatccagat gratatccga gatgttgaat     900

aaacttagcc atttcgt                                                    917
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<212>  DNA
<213>  Homo sapien

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ccaaacgccg accaaggaaa actcactacc atgagaattg cagtgatttg cttttgcctc     180

ctaggcatca cctgtgccat accagttaaa caggctgatt ctggaagttc tgaggaaaag     240

cagctttaca acaaataccc agatgctgtg gccacatggc taaaccctga cccatctcag     300

aagcagaatc tcctagcccc acagaatgct gtgtcctctg aagaaaccaa tgactttaaa     360

caagagaccc ttccaagtaa gtccaacgaa agccatgacc acatggatga tatggatgat     420

gaagatgatg atgaccatgt ggacagccag gactccattg actcgaacga ctctgatgat     480

gtagatgaca ctgatgattc tcaccagtct gatgagtctc accattctga tgaatctgat     540

gaactggtca ctgattttcc cacggacctg ccagcaaccg aagttttcac tccagttgtc     600

cccacagtag acacatatga tggccgaggt gatagtgtgg ttatggactg aggtcaaaat     660

ctaagaagtt gcgcagacct gaatacagta ccctgatgct acagacgagg acatcactca     720

caatggaaag cgaggagttg acatggtgca tacaagggca ccacgtggcc agaccgacac     780

ggcgccgagg gccgcggggc acgccaacac caagagcagc gcagaccaac ccaaccggga     840

cagacacaaa acggcagacg aaaaagagcc cgaagacgaa acacagcgca gcgcaacaga     900

agggcacaaa ag                                                        912
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gaggcagagc acagcatcgt cgggaccaga ctcgtctcag gccagttgca gccttctcag     120

ccaaacgccg accaaggaaa actcactacc atgagaattg cagtgatttg cttttgcctc     180

ctaggcatca cctgtgccat accagttaaa caggctgatt ctggaagttc tgaggaaaag     240
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cagctttaca acaaataccc agatgctgtg gccacatggc taaaccctga cccatctcag      300

aagcagaatc tcctagcccc acagaccctt ccaagtaagt ccaacgaaag ccatgaccac      360

atggatgata tggatgatga agatgatgat gaccatgtgg acagccagga ctccattgac      420

tcgaacgact ctgatgatgt agatgacact gatgattctc accagtctga tgagtctcac      480

cattctgatg aatctgatga actggtcact gatttttcca cggacctgcc agcaaccgaa      540

gttttcactc cagttgtccc cacagtagac acatatgatg gccgaggtga tagtgtggtt      600

atggactgag gtcaaaatct aagaagttgc gcagacctga atacagtacc ctgatgctac      660

agacgaggac atcactcaca atggaaagcg aggagttgac atggtgcata caagggcacc      720

acgtggccag accgacacgg cgccgagggc cgcggggcac gccaacacca agagcagcgc      780

agaccaaccc aaccgggaca gacacaaaac ggcagacgaa aaagagcccg aagacgaaac      840

acagcgcagc gcaacagaag ggcacaaaag                                      870


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ctaggcatca cctgtgccat accagttaaa caggctgatt ctggaagttc tgagggaccc      240

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ctttaaacaa gagacccttc caagtaagtc caacgaaagc catgaccaca tggatgatat      360

ggatgatgaa gatgatgatg accatgtgga cagccaggac tccattgact cgaacgactc      420

tgatgatgta gatgacactg atgattctca ccagtctgat gagtctcacc attctgatga      480

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agttgtcccc acagtagaca catatgatgg ccgaggtgat agtgtggtta tggactgagg      600

tcaaaatcta agaagttgcg cagacctgaa tacagtaccc tgatgctaca gacgaggaca      660

tcactcacaa tggaaagcga ggagttgaca tggtgcatac aagggcacca cgtggccaga      720

ccgacacggc gccgagggcc gcggggcacg ccaacaccaa gagcagcgca gaccaaccca      780

accgggacag acacaaaacg gcagacgaaa aagagcccga agacgaaaca cagcgcagcg      840

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tgccatctgc cccccgaggc tgctagatgt cggtgtaggc atgtcccacc cacccgccgc     180

ctcccacgga cctcggggac accagagctg ccgacttgga gactcctggt ctgtgaagag     240

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gtgctgccct tatgcccggc gccgggcacc aactccatgt ttggtgtttg tctgtgtttg     660

tttttcaaga aatgattcaa attgctgctt ggattttgaa atttactgta actgtcagtg     720

tacacgtctg gaccccgttt cattttaca ccaatttggt aaaaatgctg ctctcagcct     780

cccacaatta aaccgcatgt gatctccaaa gaaaaacaaa aaacaacaac caacacaaca     840

aaaaaaccaa gaaaacccgc gcaccgccag aaaaccaggc agacccaaga aacacagggc     900

gcaccgcgcc gctgcagcaa cgaacaagga ccgtagtgcc gcaccgagca cgaaccaacg     960

acgggagaac agggccacca cacaagacac aagcgacgac aaccacaacc gcaccagcgg    1020

caggggatga gacaccacgc gcaacgaaca ggacaagata ggcacgaaag caacaagtca    1080

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ggcgacgaga cccagtggct agaagttcac catgtctatt ctcaagatcc atgccaggga     180

gatctttgac tctcgcggga atcccactgt tgaggttgat ctcttcacct caaaaggtct     240

cttcagagct gctgtgccca gtggtgcttc aactggtatc tatgaggccc tagagctccg     300

ggacaatgat aagactcgct atatggggaa gggtgtctca aaggctgttg agcacatcaa     360
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cattctgggg gtgtcccttg ccgtctgcaa agctggtgcc gttgagaagg gggtccccct    540
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<212> DNA
<213> Homo sapien

<400> 80

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tgacaaactg atgatcgaga tggatggaac agaaaataaa tctaagtttg gtgcgaacgc       480

cattctgggg gtgtcccttg ccgtctgcaa agctggtgcc gttgagaagg gggtccccct       540

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caatgtcatc aatggcggtt ctcatgctgg caacaagctg gccatgcagg agttcatgat       660

cctcccagtc ggtgcagcaa acttcaggga agccatgcgc attggagcag aggtttacca       720

caacctgaag aatgtcatca aggagaaata tgggaaagat gccaccaatg tggggatga       780

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<210>   81
<211>   1370
<212>   DNA
<213>   Homo sapien

<400>   81
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tgtcgtcttg gttcagccaa ggtcacagag ggagtgatag cttccgcgca gccctggcta   180

cggactctgg gcatctttcc actgccccgc ttgcgccacc tgttaggcag gatcgttttt   240

cctctggggc aagatcaaaa tccaggtcct gcaggaagaa actcctctta aaaatagtag   300

ggaagagtct ccctggaact gttttctcct ttcaggatga gggggatcga gcaagccact   360

gtaacccctg gcttggcttc ctcttactat gagattgctc gtgggccctt agaagttcca   420

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<211>   350
<212>   DNA
<213>   Homo sapien

<400> 82

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tttgtctttt gatattaaaa agaagtacat gttcattgta gagaatttgg aaactgtaga   300

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<210>   83
<211>   814
<212>   DNA
<213>   Homo sapien

<400> 83

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ggctcctgca ggctgggatc tgctggcggc ctgggcagca ccctcggggg tagcagctac   240

tccagctgct acagctttgg ctctggtggt ggctatggca gcagctttgg gggtgttgat   300

gggctgctgg ctggaggtga gaaggccacc atgcagaacc tcaatgaccg cctggcctcc   360

tacctggaca aggtgcgtgc cctggaggag gccaacactg agctggaggt gaagatccgt   420

gactggtacc agaggcaggc cccggggccc gcccgtgact acagccagta ctacaggaca   480

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ggcctgcgcc tgagtgtgga ggccgacatc aatggcctgc gccagggtgc cggkaagatg   660

rmcctggcag aagcgggacc gggagatgcg aaatgggaga acccaagggg agccggctac   720

ggaagaaaac cccggggggg ataaaccctg aagccagggg gcggggacac cgcgggatgg   780

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<210>   84
<211>   1731
<212>   DNA
<213>   Homo sapien

<400> 84

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ggttgtgggg atcggtctcc aggcagcagg gggcagcagg gtcaaggaga ggctaactgg   180
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.111.

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gatgagagaa aggcatttta tagcctgggc ataagtgaaa tcagcagagc ctctgggtgg   1680

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<210>　85
<211>　1778
<212>　DNA
<213>　Homo sapien

<400>　85
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ctgagcactt cctgacgttg ctggtagtgc ctgccatcaa gaaagattat ggttcccagg     1020

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<210> 86
<211> 766

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<213>  Homo sapien

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ggctcacgac caaaaagtag agggttgctt caatcagctt ttgtatgaca tccgaactaa     240

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aggatctaac aatgtcactt gggccagaat ggacctgccc tttctgctcc agacttgggg     480

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<213>  Homo sapien

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<210>   88
<211>   735
<212>   DNA
<213>   Homo sapien

<400>   88
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cagcaaagct gtttgaaact ctccattcca tttctatacc ccacaagttt tcactgaatg    660
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<210> 89
<211> 1596
<212> DNA
<213> Homo sapien

<400> 89
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tccctctcct tcaattccac tttcctctgc ttactttttt tttttttctg acagggtctc       300

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117

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118

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<213> Homo sapien

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<212> DNA
<213> Homo sapien

<400> 94

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<213>   Homo sapien

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<213>  Homo sapien

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acagtactca gggcaattct ggccagattg ataactgttt cactaatgaa catcaacata      360

tgtactgagg ttggcagatg aaacaactca agatgttcac ttcttggcca atacacaggg      420

gctcttctta acatctggac aactgtttca ttgcccaaat aaaatgtaac atcaattctt      480

ataagcaaac aaacccaaat gtacttacta cataattccc aggagatgct gaggagtatg      540

gtattgaatt ggcatttgtt gggtttggcc agagtaccgg gagaaggtgg agactgagct      600

ccagggcgtg tgcgacaccg tgctgggcct gctggacagc cacctcatca aggaggccgg      660

ggacgccgag agccgggtct tctacctgaa gatgaagggt gactactacc gctacctggc      720

cgaggtggcc accggtgacg acaagaagcg catcattgac tcagcccggt cagcctacca      780
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124

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ggaggccatg gacatcagca agaaggagat gccgcccacc aaccccatcc gcctgggcct      840

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ctacaaagac agcaccctca tcatgcagct gctgcgagac aacctgacac tgtggacggc     1020

cgacaacgcc ggggaagagg ggggcgaggc tccccaggag ccccagagct gagtgttgcc     1080

cgccaccgcc ccgccctgcc ccctccagtc ccccaccctg ccgagaggac tagtatgggg     1140

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cgcacctaac cactggtcat gcccccaccc ctgctctccg cacccgcttc ctcccgaccc     1320

caggaccagg ctacttctcc cctcctcttg cctccctcct gcccctgctg cctctgatcg     1380

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tgggtgtgtg tgtgtgtgtg tgtgtgtgtg tgtgtgcgcg cgcgccagtg caagaccgag     1500

attgagggaa agcatgtctg ctgggtgtga ccatgtttcc tctcaataaa gttcccctgt     1560

gacactcaaa aaaaaaaaag ggggcggcca gcagaaaagg gacctcgtaa acccgggaat     1620

aaatccggga ccggaacctg caggcgagac ccgcagaaac tcgatatcag gcttatagat     1680

accggcaacc tcgagggcg                                                  1699
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<211>    2788
<212>    DNA
<213>    Homo sapien

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cttggatcag gcctgaaccc agctgtctct acccccagga aacataccga tgtgttcaac      180

tggaaggtgc gggcaggctc agacaaactg ggcagcttcc catccctggc tgtggccaag      240

atcatcatca ttgaattcaa ccccatgtac cccaaagaca atgacatcgc cctcatgaag      300

ctgcagttcc cactcacttt ctcaggcaca gtcaggccca tctgtctgcc cttctttgat      360

gaggagctca ctccagccac cccactctgg atcattggat ggggctttac gaagcagaat      420

ggagggaaga tgtctgacat actgctgcag gcgtcagtcc aggtcattga cagcacacgg      480

tgcaatgcag acgatgcgta ccagggggaa gtcaccgaga agatgatgtg tgcaggcatc      540

ccggaagggg gtgtggacac ctgccagggt gacagtggtg gcccctgat gtaccaatct      600

gaccagtggc atgtggtggg catcgttagc tggggctatg ctgcggggg cccgagcacc      660
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ccaggagtat acaccaaggt ctcagcctat ctcaactgga tctacaatgt ctggaaggct    720

gagctgtaat gctgctgccc ctttgcagtg ctgggagccg cttccttcct gccctgccca    780

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atcccaggga gagacacagc ccactgaaca aggtctcagg ggtattgcta agccaagaag   1020

gaactttccc acactactga atggaagcag gctgtcttgt aaaagcccag atcactgtgg   1080

gctggagagg agaaggaaag ggtctgcgcc agccctgtcc gtcttcaccc atccccaagc   1140

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attcctcaaa tgcctaaaac aaagaaaata gaaacccaga aaacaaaaca aaataaaaca   1980

aaaccatcag aactgtgagt ggaaactaag gtgatgatct gggagcaata cactaaaatc   2040

ttgggtcgag acctatatga aggctggcag tggagctaaa cctggacaca ctgaagacaa   2100

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caaattgcag atggtctgga ggaaaatttc ccaaatttag agcctcagga ttcccaaaga   2220

tcctccaaat atgagctcac aatcaaagat cagagacgtt gaaaaataaa aaacaccttat   2280

agtgggcagc ataaaaaaca gctaatttag aaccccaaag gcttcagatg tcagaatatt   2340

agagacttat gataataagc aatatttgca gagtatttgt atgtgccaga cactattgta   2400

agtgcttcat catgtactga ttcatttaat actcacagaa atctgtgaga tgggtattat   2460

tcttatcctc actctatgga ttaaaaaaac taaggcacaa agtggttaag ctccttgcct   2520
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gagattatag actgtaagtt gaacgtgagc acttggaata cagagttcat gctgtaaact    2580

accacactat agggcctcca atatgataat ttataaaata tttgaataaa aaatgaatac    2640

tagttccaca ttttaaaatc atgtttaact gtggtcaaat gcacataaca caagttgcca    2700

tcttcaccat ttttaggtgt atagttcagt ggtgttatgt acattcacac tattgtgcag    2760

tcatcaccac actgcctaca ctagtgga                                       2788
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<210> 99
<211> 924
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (899)..(899)
<223> n=a, c, g or t

<400> 99
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gcggcatcgg aggcggcatc gggggcggct ccagccgcat ctcctccgtc ctggccggag     180

ggtcctgccg tgcccccagc acctacgggg gcggcctgtc tgtcatcctc tcgcttctcc     240

tctgggggag cctgcgggct ggggggcggc tatggcggtg gcttcagcag cagcagcagc     300

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cactgagctg gaggtgaaga tccgtgactg gtaccagagg caggccccgg ggcccgcccg     540

tgactacagc cagtactaca ggacaattga ggagctgcag aacaagatcc tcacagccac     600

cgtggacaat gccaacatcc tgctacagat tgacaatgcc cgtctggctg ctgatgactt     660

ccgcaccaag tttgagacag agcaggccct gcgcctgagt gtggaggccg acatcaatgg     720

cctgcgcagg gtgctggatg agctgaccct ggccagagcc gacctggaga tgcagattga     780

gaacctcaag ggaggagctg gcctaactga agaagaacca cgaggaggag atgaacgscc     840

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agccgcatcc tcaacgagat gcgt                                            924
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<210> 100
<211> 754
<212> DNA
<213> Homo sapien

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<220>
<221>  misc_feature
<222>  (597)..(597)
<223>  n=a, c, g or t
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cacaacgagc cacacttgtg ttcaaagctc acatttccct gggatatgac aacaccgaga       120

atttggctac cacgcacacc cagggttggg tggagcctca ctggcccacc actggcctcc       180

aaaggaggta aagagacccc tggagccaac cagccccacg cacagagcac acaaagagga       240

aagaagagaa gacccctcac tgctggggag gtccctgcca ccacactcag tcccccacca       300

cactgaatct cccctcctca cagttgccat gtagacccct tgaagagggg aggggcctag       360

ggagccgcac cttgtcatgt accatcaata aagtaccctg tgctcaacca aaaaaaaaa       420

aaaaaaaagg ggggtaatg tcggggggggg gcaacaaggg gacatgaagg cgcatggggc       480

accaaagcgg gttcctggac ccagtttctg gcgcccacgg cggcaattcg gcgggtcccc       540

taagggaagc cgatgaattc gaaacccgtt aacctgtagt cattttttcga caaaacnaac       600

aaaacaacag cacggacaca cgagagtacc cacattgaca aaaagtcggt agaaagagaa       660

acaaggacaa ataccacgaa agacgaaaca gataagagac aaacgaaggc agaaggaaac       720

agacaaaaac gacaagaaga aaaaataata caca                                   754
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<210>  101
<211>  1068
<212>  DNA
<213>  Homo sapien
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<400>  101
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gaaatcccat caccatcttc caggagcgag atccctccaa aatcaagtgg ggcgatgctg       120

gcgctgagta cgtcgtggag tccactggcg tcttcaccac catggagaag gctggggctc       180

atttgcaggg gggagccaaa agggtcatca tctctgcccc ctctgctgat gcccccatgt       240

tcgtcatggg tgtgaaccat gagaagtatg acaacagcct caagatcatc agcaatgcct       300

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tggccttccg tgtccccact gccaacgtgt cagtggtgga cctgacctgc cgtctagaaa       600
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aacctgccaa atatgatgac atcaagaagg tggtgaagca ggcgtcggag ggccccctca    660

agggcatcct gggctacact gagcaccagg tggtctcctc tgacttcaac agcgacaccc    720

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ggctcaagag tagaccctgg acacagccag agagccagag agaaagagac tcactgtggg    900

agcckgccat cagkcccmmc aakgawtycc cycakgcaga ccygaagggg grggsgccsg    960

tgccaaagcc ggsccaaaaa aggggggaat ccggcacccc ccttaagcca agggaaaacg   1020

gggcagggaa gggggccctg tggacccact atgggtaggt gcaccgtg                1068
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<210>   102
<211>   1847
<212>   DNA
<213>   Homo sapien

<400>   102
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ggggtggctc aacccgaggg ggttccctcc tggctggggg aggtggcttt ggtgggggga    180

gtctctctgg gggaggtgga agccgaagta tctcagcttc ttctgctagg tttgtctctt    240

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gtggtggcga tggtggtctc ctctctggca atgagaaaat taccatgcag aacctcaatg    420

accgcctggc ctcctacctg gacaaggtac gtgccctgga ggaggccaat gctgacctgg    480

aggtgaagat ccatgactgg taccagaagc agaccccagc cagcccagaa tgcgactaca    540

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gcctggttct tcagcaagac tgaggagctg aacaaagagg tggcctccaa cacagaaatg    1140
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acagtgtctg ttcatgtaat aaagaattac ttttcctttt gcaaata              1847
```

<210> 103
<211> 1613
<212> DNA
<213> Homo sapien

<400> 103
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ggggtggctc aacccgaggg ggttccctcc tggctggggg aggtggcttt ggtggggggga   180

gtctctctgg gggaggtgga agccgaagta tctcagcttc ttctgctagg tttgtctctt    240

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gtggtggcga tggtggtctc ctctctggca atgagaaaat taccatgcag aacctcaatg    420

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aggtgaagat ccatgactgg taccagaagc agaccccagc cagcccagaa tgcgactaca    540

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gagtcctgga tgagctgacc ctggccagga ctgacctgga gatgcagatc gagggcctga    780

atgaggagct agcctacctg aagaagaacc acgaagagga gatgaaggag ttcagcagcc    840

agctggccgg ccaggtcaat gtggagatgg acgcagcacc gggtgtggac ctgacccgtg    900
```

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tgctggcaga gatgagggag cagtacgagg ccatggcgga gaagaatcgc cgggatgtcg      960

aggcctggtt cttcagcaag actgaggagc tgaacaaaga ggtggcctcc aacacagaaa     1020

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tcgagctgca gtcccagctc agcatgaaag ctgggctgga gaactcactg gccgagacag     1140

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caggccaagt ggaggactgg ccagagggcc tgcacatgca aactccagtc cctgccttca     1440

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ctctgcctct ccccaccttc tttggagcaa ggagatgcag ctgtattgtg taacaagctc     1560

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<210> 104
<211> 1490
<212> DNA
<213> Homo sapien

<400> 104

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ggggtggctc aacccgaggg ggttccctcc tggctggggg aggtggcttt ggtgggggga      180

gtctctctgg gggaggtgga agccgaagta tctcagcttc ttctgctagg tttgtctctt      240

caggggtcagg aggaggatat ggggggtggca tgagggtctg tggctttggt ggaggggctg      300

gtagtgtttt cggtggaggc tttggagggg gcgttggtgg gggttttggt ggtggctttg      360

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gagtcctgga tgagctgacc ctggccagga ctgacctgga gatgcagatc gagggcctga      780

atgaggagct agcctacctg aagaagaacc acgaagagga gatgaaggag ttcagcagcc      840

agctggccgg ccaggtcaat gtggagatgg acgcagcacc gggtgtggac ctgacccgtg      900
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tgctggcaga gatgagggag cagtacgagg ccatggcgga gaagaaccgc cgggatgtcg   960

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tgatccagac cagcaagacg gagatcacag acctgagacg cacgatgcag gagctggaga   1080

tcgagctgca gtcccagctc agcatgaaag ctgggctgga gaactcactg gccgagacag   1140

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acataaagac acggctggag caggagatcg ctacttaccg cagcctgctc gagggccagg   1320

atgccaagat ggctggcatt ggcatcaggg aaggggctttg catgcgctct attccccctc   1380

tgcctctccc caccttcttt ggagcaagga gatgcagctg tattgtgtaa caagctcatt   1440

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<211>  986
<212>  DNA
<213>  Homo sapien

<400>  105
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ggggtggctc aacccgaggg ggttccctcc tggctggggg aggtggctt ggtggggggga   180

gtctctctgg gggaggtgga agccgaagta tctcagcttc ttctgctagg tttgtctctt   240

cagggtcagg aggaggatat gggggtggca tgagggtctg tggctttggt ggagggggctg   300

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gtggtggcga tggtggtctc ctctctggca atgagaaaat taccatgcag aacctcaatg   420

accgcctggc ctcctacctg dacaaggtac gtgccctgga ggaggccaat gctgacctgg   480

aggtgaagat ccatgactgg taccagaagc agaccccagc cagcccagaa tgcgactaca   540

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140

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<213>   Homo sapien

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cttacttctt gccttaagaa aagagaagaa atgaaactga aggagtgtgt ttccatcctc       360

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gcctataaag cattgattga aaaataacta gaattgtgca tatataacac ataatctcca    2040

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<213> Homo sapien

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ccacggaagg aaagcccctc tgtccgatcc tccaaagacg gaaagctgct ggctgcaacc    420

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<211>  715
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agaaaccgaa actactgggg aaagggaggg ctcactgaga accatcccag taacccgacc     540

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acagtggcca gccccccaac tatgagatgc acaaggagga acatgaggtg gctgtgctgg     660
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gaggtgactg catcctccag catctcaact ccgtctgtct actgtgtgag acttcggcgg    240

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tatgttctgt gaacacaaat aaaattgatt tactgtctgg aaaaagaaar agaaaagaaa    420

aaaaaacgct gtgcgggata actcagtggg tcattaggcg tgttcccgtg gggtggacac    480

ttgttttttcc gggctcacaa tttccagcac aacatatgag caccaacggg gaaacgacga    540

gggcagcggg gggccagtgg aagaagcgaa cacacggca                           579
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<210>  120
<211>  1018
<212>  DNA
<213>  Homo sapien

<400>  120
gcccttagcg tggtcgcggc cgaggtaccg tgtcccgttc ttagtgctcg aatgtcccaa     60

cctgaagctg aagaagccgc cctggttgca catgccgtcg gccatgactg tgtatgctct    120
```

```
ggtggtggtg tcttacttcc tcatcaccgg aggaataatt tatgatgtta ttgttgaacc    180

tccaagtgtc ggttctatga ctgatgaaca tgggcatcag aggccagtag ctttcttggc    240

ctacagagta aatggacaat atattatgga aggacttgca tccagcttcc tatttacaat    300

gggaggttta ggtttcataa tcctggaccg atcgaatgca ccaaatatcc caaaactcaa    360

tagattcctt cttctgttca ttggattcgt ctgtgtccta ttgagttttt tcatggctag    420

agtattcatg agaatgaaac tgccgggcta tctgatgggt tagagtgcct ttgagaagaa    480

atcagtggat actggatttg ctcctgtcaa tgaagtttta aaggctgtac caatcctcta    540

atatgaaatg tggaaaagaa tgaagagcag cagtaaaaga aatatctagt gaaaaaacag    600

gaagcgtatt gaagcttgga ctagaatttc ttcttggtat taaagagaca agtttatcac    660

agaatttttt ttcctgctgg cctattgcta taccaatgat gttgagtggc attttctttt    720

tagttttca ttaaaatata ttccatatct acaactataa tatcaaataa agtgattatt    780

ttttacaacc ctcttaacat tttttggaga tgacatttct gattttcaga aattaacata    840

aaatccagaa gcaagattcc gtaagctgag aactctggac agttgatcag ctttacctat    900

ggtgctttgc ctttaactag agtgtgtgat ggtagattat ttcagatatg tatgtaaaac    960

tgtttcctga acaataagat gtatgaacgg agcagaaata aatacttttt ctaattaa    1018
```

```
<210>   121
<211>   1041
<212>   DNA
<213>   Homo sapien

<400>   121
acttgttagg gagggcgggc ctgtttccgg gaggcgcgtg gggcttgagg ccgagaacgg    60

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ccaacctgaa gctgaagaag ccgccctggt tgcacatgcc gtcggccatg actgtgaata    180

atttatgatg ttattgttga acctccaagt gtcggttcta tgactgatga acatgggcat    240

cagaggccag tagctttctt ggcctacaga gtaaatggac aatatattat ggaaggactt    300

gcatccagct tcctatttac aatgggaggt ttaggtttca taatcctgga ccgatcgaat    360

gcaccaaata tcccaaaact caatagattc cttcttctgt tcattggatt cgtctgtgtc    420

ctattgagtt ttttcatggc tagagtattc atgagaatga aactgccggg ctatctgatg    480

ggttagagtg cctttgagaa gaaatcagtg gatactggat ttgctcctgt caatgaagtt    540

ttaaaggctg taccaatcct ctaatatgaa atgtggaaaa gaatgaagag cagcagtaaa    600

agaaatatct agtgaaaaaa caggaagcgt attgaagctt ggactagaat ttcttcttgg    660

tattaaagag acaagtttat cacagaattt ttttcctgc tggcctattg ctataccaat    720
```

```
· gatgttgagt ggcattttct ttttagtttt tcattaaaat atattccata tctacaacta    780

taatatcaaa taaagtgatt atttttttaca acccttctta cattttttgg agatgacatt    840

tctgattttc agaaattaac ataaaatcca gaagcaagat tccgtaagct gagaactctg    900

gacagttgat cagctttacc tatggtgctt tgcctttaac tagagtgtgt gatggtagat    960

tatttcagat atgtatgtaa aactgtttcc tgaacaataa gatgtatgaa cggagcagaa    1020

ataaatactt tttctaatta a ·                                              1041
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```
<210>  122
<211>  916
<212>  DNA
<213>  Homo sapien

<400>  122
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ccaacctgaa gctgaagaag ccgccctggt tgcacatgcc gtcggccatg actgtgtatg    180

ctctggtggt ggtgtcttac ttcctcatca ccggaggaat aatttatgat gttattgttg    240

aacctccaag tgtcggttct atgactgatg aacatgggca tcagaggcca gtagctttct    300

tggcctacag gggctatctg atgggttaga gtgcctttga gaagaaatca gtggatactg    360

gatttgctcc tgtcaatgaa gttttaaagg ctgtaccaat cctctaatat gaaatgtgga    420

aaagaatgaa gagcagcagt aaaagaaata tctagtgaaa aaacaggaag cgtattgaag    480

cttggactag aatttcttct tggtattaaa gagacaagtt tatcacagaa ttttttttcc    540

tgctggccta ttgctatacc aatgatgttg agtggcattt tctttttagt ttttcattaa    600

aatatattcc atatctacaa ctataatatc aaataaagtg attatttttt acaaccctct    660

taacattttt tggagatgac atttctgatt ttcagaaatt aacataaaat ccagaagcaa    720

gattccgtaa gctgagaact ctggacagtt gatcagcttt acctatggtg ctttgccttt    780

aactagagtg tgtgatggta gattatttca gatatgtatg taaaactgtt tcctgaacaa    840

taagatgtat gaacggagca gaaataaata cttttttctaa ttaaaaaaaa agaaggggcg    900

cgccaagata ccccag                                                     916
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```
<210>  123
<211>  1018
<212>  DNA
<213>  Homo sapien

<400>  123
gcccttagcg tggtcgcggc cgaggtaccg tgtcccgttc ttagtgctcg aatgtcccaa     60
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cctgaagctg aagaagccgc cctggttgca catgccgtcg gccatgactg tgtatgctct      120
ggtggtggtg tcttacttcc tcatcaccgg aggaataatt tatgatgtta ttgttgaacc      180
tccaagtgtc ggttctatga ctgatgaaca tgggcatcag aggccagtag ctttcttggc      240
ctacagagta aatggacaat atattatgga aggacttgca tccagcttcc tatttacaat      300
gggaggttta ggtttcataa tcctggaccg atcgaatgca ccaaatatcc caaaactcaa      360
tagattcctt cttctgttca ttggattcgt ctgtgtccta ttgagttttt tcatggctag      420
agtattcatg agaatgaaac tgccgggcta tctgatgggt tagagtgcct ttgagaagaa      480
atcagtggat actggatttg ctcctgtcaa tgaagtttta aaggctgtac caatcctcta      540
atatgaaatg tggaaaagaa tgaagagcag cagtaaaaga aatatctagt gaaaaaacag      600
gaagcgtatt gaagcttgga ctagaatttc ttcttggtat taaagagaca agtttatcac      660
agaatttttt ttcctgctgg cctattgcta taccaatgat gttgagtggc attttctttt      720
tagttttttca ttaaaatata ttccatatct acaactataa tatcaaataa agtgattatt      780
ttttacaacc ctcttaacat tttttggaga tgacatttct gattttcaga aattaacata      840
aaatccagaa gcaagattcc gtaagctgag aactctggac agttgatcag ctttacctat      900
ggtgctttgc ctttaactag agtgtgtgat ggtagattat ttcagatatg tatgtaaaac      960
tgtttcctga acaataagat gtatgaacgg agcagaaata aatacttttt ctaattaa     1018
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<210>   124
<211>   916
<212>   DNA
<213>   Homo sapien

<400>   124
acttgttagg gagggcgggc ctgtttccgg gaggcgcgtg gggcttgagg ccgagaacgg       60
cccttgctgc caccaacatg gagactttgt accgtgtccc gttcttagtg ctcgaatgtc      120
ccaacctgaa gctgaagaag ccgccctggt tgcacatgcc gtcggccatg actgtgtatg      180
ctctggtggt ggtgtcttac ttcctcatca ccggaggaat aatttatgat gttattgttg      240
aacctccaag tgtcggttct atgactgatg aacatgggca tcagaggcca gtagctttct      300
tggcctacag gggctatctg atgggttaga gtgcctttga gaagaaatca gtggatactg      360
gatttgctcc tgtcaatgaa gttttaaagg ctgtaccaat cctctaatat gaaatgtgga      420
aaagaatgaa gagcagcagt aaaagaaata tctagtgaaa aacaggaag cgtattgaag      480
cttggactag aatttcttct tggtattaaa gagacaagtt tatcacagaa ttttttttcc      540
tgctggccta ttgctatacc aatgatgttg agtggcattt tctttttagt ttttcattaa      600
aatatattcc atatctacaa ctataatatc aaataaagtg attattttt acaaccctct      660
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taacattttt tggagatgac atttctgatt ttcagaaatt aacataaaat ccagaagcaa      720

gattccgtaa gctgagaact ctggacagtt gatcagcttt acctatggtg ctttgccttt      780

aactagagtg tgtgatggta gattatttca gatatgtatg taaaactgtt tcctgaacaa      840

taagatgtat gaacggagca gaaataaata ctttttctaa ttaaaaaaaa agaaggggcg      900

cgccaagata ccccag                                                      916
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<210>  125
<211>  762
<212>  DNA
<213>  Homo sapien

<400>  125
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taaatccagt cgcggtgtga ccgagctggc taacaggctt gtctgcctgg ttttcctcct      180

acacgtggac attattctcc tgatcctcct acctggtcca ccccagggct accggaaggt      240

aaaatcttca cctgaaccaa ttatgagcag tctccttact gaaggtacct gcccggcgac      300

cgctcgagtc gcggcgaggg aggaaggtgg gtctgaatct agcaccatga cggaactaga      360

gacagccatg ggcatgatca tagacgtctt ttcccgatat tcgggcagcg agggcagcac      420

gcagaccctg accaaggggg agctcaaggt gctgatggag aaggagctac caggcttcct      480

gcagagtgga aaagacaagg atgccgtgga taaattgctc aaggacctgg acgccaatgg      540

agatgcccag gtggacttca gtgagttcat cgtgttcgtg gctgcaatca cgtctgcctg      600

tcacaagtac tttgagaagg caggactcaa atgatgccct ggagatgtca cagattcctg      660

gcagagccat ggtcccaggc ttcccaaaag tgtttgttgg caattattcc cctaggctga      720

gcctgctcat gtacctctga ttaataaatg cttatgaaat ga                        762
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<210>  126
<211>  563
<212>  DNA
<213>  Homo sapien

<400>  126
tgccgaatcc gtcgtgcaag acatgagagt cccgggttga ggaagggtac aagtctctta      60

agatccaaca ctcaaaaggg ccggttcttc caagggtgcc gaattgtggg aagtggacca      120

aaatggctga tggcccytta aaaacatcay ytttwacaac gtcarggatt tagcwtaaaa      180

agratyggtt aaaagctttg gttyctagwa aaggtwagtg tgtgtggttt ttttaagaag      240

ctgttttgct aaattatttt tacttggaat gtttcaaaca gatttcaggc tgcaaacttg      300

ttttataatc gtttgcttct ccaagtgaag ctcagaaata cctaaaaata gctgtaacgt      360
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tcgcgttagg aaagatggtg tttattccag tttgcatttt tatggtgaaa taaaatcctt    420

ttccaatgaa ctaaaaaaaa aaaaaaaggg cggccgctcg cgatctagaa ctagtttttt    480

ttaatttaca aaaatataaa atatgaagac ataaacccag ttgccatctg cgtgacaata    540

aaacattaat gctaacactt ttt                                            563
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<210> 127
<211> 757
<212> DNA
<213> Homo sapien

<400> 127
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ccctgcggcc cccgcctgcc ctttaaaaga gcggggcctg cgccggccgc gccacaccgc     60

ggggaccagg aggcacgctg gttttccggg gccgctccat cgcgccttcc tcctgcgcct    120

cgcttctccg gtccagccgc catcttcctt tccgcacagg ggccgccgag cggggccatg    180

cagccaacgc tgcttctcag cctcctggga gccgtggggc tggcggctgt caattccatg    240

ccagtggata acaggaacca caatgaagga atggtgactc gctgcatcat tgaggtcctc    300

tcaaatgcct tgtcgaagtc cagcgctcca cccatcaccc ctgagtgccg ccaagtcctg    360

aagacgaaaa aaagaactcg aaaacttggc tgcaatggat ttggaactac agaagatagc    420

tgagaaattc agccaaaggg gctgactgtc attggagcgg tgggcactgt taagaagcag    480

ccatcacatg atctgttttt caccacttca ctgaaagaca ccatttatct acccaagggc    540

agaaagtaga acttactatt cattaaatgt ttgacacaat tggaattgtc tttaatttct    600

gtcagaatgc tattgaaaat gtgaattgca tgacttgtag catattcttt tctgcaaaat    660

agacatatta acatgcttat gacaatgact gtgctactgt ctttggaaaa atgtttgtct    720

cagttggaaa taataaaaga ttcacctgag accaaaa                            757
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<210> 128
<211> 805
<212> DNA
<213> Homo sapien

<400> 128
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gagctcgcgc gcctgcaggt gagaaaattg agacggagct aagagatatc tgcaatcaat     60

gtactgtctc tcttcggaaa gttctmgatc ccaatgcttc acaagcagag agcaaagtct    120

tctatttgaa aatgaaagga gattactacc gttacttggc tgaggttgcc gctggtgatg    180

aaccagaaag ggattggccg atccgttcaa cacaaagcat acccaaaggg aaagcttttg    240

aaatcagcra aaaggaaatg caaccaacac atcctatcag actgggtctg gcccttaact    300

tctctgtgtt ctattatgag attctgaact ccccagagaa agcctggtct scttgcaaag    360
```

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acagctttg atgaagccat tgctgaactt gatacattaa gtgaagagtc atacaaagac      420

agcacgctaa taatgcaatt actgagagac aacttgacat tgtggacatc ggatacccaa      480

ggagacgaag ctgaagcagg agaaggaggg gmaaattmac cggcttccaa sstttttgtct     540

gcctcattct aaaattkaca cagtagacca tkttgtcatc catgctgtcc cacaaatagt      600

wtttwgtwta cgatttatga caggtttatg tyacttctat tygaatttct atatttgccc      660

atgtggktgt tatgtgttaa tattagggga gtagagccag ttaacattta gggagttatc      720

tgttttcatc ttgaggtggc catatgggga tgtggaattt ttatacaagt tataagtgtt      780

tggcatagta cctgcccggg cggcc                                           805
```

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<210>   129
<211>   607
<212>   DNA
<213>   Homo sapien

<220>
<221>   misc_feature
<222>   (15)..(15)
<223>   n=a, c, g or t


<400>   129
aggggcgagg aagantgagg gccacctgct tatctgggag gtgttgggcg cggacagtcg      60

agatgtcaga gaaaaagcag ccggtagact taggtctgtt agaggaagac gacgagtttg      120

aagagttccc tgccgaagac tgggctggct tagatgaaga tgaagatgca catgtctggg      180

aggataattg ggatgatgac aatgtagagg atgacttctc taatcagtta cgagctgaac      240

tagagaaaca tggttataag atggagactt catagcatcc agaagaagtg ttgaagtaac      300

ctaaacttga cctgcttaat acattctagg gcagagaacc caggatggga cactaaaaaa      360

atgtgtttat ttcattatct gcttggattt atttgtgttt ttgtaacaca aaaaataaat      420

gttttgatat aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaata tttatttctt      480

tttattattc tttgtcccct ctgtttgttt gtcggtattc tcaaactatg agtgtttat       540

gtttttctcg cgctggtttg gttatatctg tcggcgtccc ctttctcccg ccggcgctaa      600

catttct                                                               607
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<210>   130
<211>   775
<212>   DNA
<213>   Homo sapien

<400>   130
tttagcgtgg tcgcggccga ggtgcggtag tgacggtggc gtttccttga ggaagagtga      60

gggttccaac tttttctgctt atctgggagg tgttgggcgc ggacagtcga gatgtcagag    120
```

```
aaaaaagcagc cggtagactt aggtctgtta gaggaagacg acgagtttga agagttccct    180

gccgaagact gggctggctt agatgaagat gaagatgcac atgtctggga ggataattgg    240

gatgatgaca atgtagagga tgacttctct aatcagttac gagctgaact agagaaacat    300

ggttataaga tggagacttc atagcatcca gaagaagtgt tgaagtaacc taaacttgac    360

ctgcttaata cattctaggg cagagaaccc aggatgggac actaaaaaaa tgtgtttatt    420

tcattatctg cttggattta tttgtgtttt tgtaacacaa aaaataaatg ttttgacata    480

aaaaaaaaaa aaaaaaaaac acccgaaact agttctctct ctctctcttt caccccgggt    540

tgaggcactg gcgggtatgg gggggcataa gcttggtcca caaccagctc aatcagcgca    600

ctctgacctg ggtggaaagc tcggggggac cccagggact cactaccacg caggagcggg    660

aagaagcaga tgtacccagg ggattcctcc aacagcagag ggctccagga acagcacgag    720

ccccaccatt ttacaccaaa cggtctgact gggggccacc gtgccgaaca gagac        775
```

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<210>    131
<211>    3018
<212>    DNA
<213>    Homo sapien

<400>    131
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actgggaatg tctgcagctt cactcctgaa gccagcgaga ccacgaaccc accaggagga    180

acaaacaact ccagacgcgc agccttaaga gctgtaacac tcaccgcgaa ggtctgcagc    240

ttcactcctg agccagccag accacgaacc caccagaagg aagaaactcc aaacacatcc    300

gaacatcaga aggagcaaac tcgtgacacg ccacctttaa gaaccgtgac actcaacgct    360

agggtccgcg gcttcattct tgaagtcagt gagaccaaga acccaccaat tccggacacg    420

ctaattgttg tagatcatca cttcaaggtg cccatatctt tctagtggaa aaattattct    480

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cctagacatg gctttagaga tccacatgtc agaccccatg tgcctcatcg agaactttaa    600

tgagcagctg aaggttaatc aggaagcttt ggagatcctg tctgccatta cgcaacctgt    660

agttgtggta gcgattgtgg gcctctatcg cactggcaaa tcctacctga tgaacaagct    720

ggctgggaag aacaagggct tctctgttgc atctacggtg cagtctcaca ccaagggaat    780

ttggatatgg tgtgtgcctc atcccaactg gccaaatcac acattagttc tgcttgacac    840

cgagggcctg ggagatgtag agaaggctga caacaagaat gatatccaga tctttgcact    900

ggcactctta ctgagcagca cctttgtgta caatactgtg aacaaaattg atcagggtgc    960
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tatcgaccta ctgcacaatg tgacagaact gacagatctg ctcaaggcaa gaaactcacc    1020

cgaccttgac agggttgaag atcctgctga ctctgcgagc ttcttcccag acttagtgtg    1080

gactctgaga gatttctgct taggcctgga aatagatggg caacttgtca caccagatga    1140

atacctggag aattccctaa ggccaaagca aggtagtgat caaagagttc aaaatttcaa    1200

tttgccccgt ctgtgtatac agaagttctt ccaaaaaaag aaatgcttta tctttgactt    1260

acctgctcac caaaaaaagc ttgcccaact tgaaacactg cctgatgatg agctagagcc    1320

tgaatttgtg caacaagtga cagaattctg ttcctacatc tttagccatt ctatgaccaa    1380

gactcttcca ggtggcatca tggtcaatgg atctcgtcta aagaacctgg tgctgaccta    1440

tgtcaatgcc atcagcagtg gggatctgcc ttgcatagag aatgcagtcc tggccttggc    1500

tcagagagag aactcagctg cagtgcaaaa ggccattgcc cactatgacc agcaaatggg    1560

ccagaaagtg cagctgccca tggaaaccct ccaggagctg ctggacctgc acaggaccag    1620

tgagagggag gccattgaag tcttcatgaa aaactctttc aaggatgtag accaaagttt    1680

ccagaaagaa ttggagactc tactagatgc aaaacagaat gacatttgta acggaacct    1740

ggaagcatcc tcggattatt gctcggcttt acttaaggat attttggtc ctctagaaga    1800

agcagtgaag cagggaattt attctaagcc aggaggccat aatctcttca ttcagaaaac    1860

agaagaactg aaggcaaagt actatcggga gcctcggaaa ggaatacagg ctgaagaagt    1920

tctgcagaaa tatttaaagt ccaaggagtc tgtgagtcat gcaatattac agactgacca    1980

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tagaaagaaa tctataaatt ttaaataaat ttggcctggc cctcatggga tgttaaacta    2100

gagcaagaat ggcaaagatg cttcttagct cctcaagcat atctgactgg catgatcctg    2160

cattgtggtt acctggaagg gaaaaacaac ccctgggaat tttatccagg aagttggaac    2220

aatcacaaac aaaagtggga ggcagaagga agaggcacat taatcctaga gaagattatc    2280

ttttctcct cagaggcaca agtgaaagca gaagctgaaa aggctgaagc gcaaaggttg    2340

gcggcgattc aaaggcagaa cgagcaaatg atgcaggaga gggagagact ccatcaggaa    2400

caagtgagac aaatggagat agccaaacaa aattggctgg cagagcaaca gaaaatgcag    2460

gaacaacaga tgcaggaaca ggctgcacag ctcagcacaa cattccaagc tcaaaataga    2520

agccttctca gtgagctcca gcacgcccag aggactgtta ataacgatga tccatgtgtt    2580

ttactctaaa gtgctaaata tgggagtttc ctttttttac tctttgtcac tgatgacaca    2640

acagaaaaga aactgtagac cttgggacaa tcaacattta aataaacttt ataattattt    2700

tttcaaactt tcatatagag ttataagatt atgatgctgg tatctggtaa aatgtacatc    2760
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ccagtagtcc aatagtttaa atgtttattg cttcctttaa gagattataa attgtataag    2820

ggacattgta tcactgcctt catttatgcg tgatattggg atggtttcat caggagatgc    2880

tttcccttgc atctcaatgt catctgtcta atttctcata aggggattat gttacctaga    2940

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ggccacacag caggaggt                                                    3018
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<210> 132
<211> 1896
<212> DNA
<213> Homo sapien

<400> 132
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<210>  138
<211>  1257
<212>  DNA
<213>  Homo sapien
```

```
<400>  138
ctattttatt tgtatgctat acaatggtgc tccactgaga ctcttgaaat tcatcataat     60

gggagtattt caagctagtg aaatcagcaa atgctataaa ccaacccttc tttggagagc    120

tgaatgttat acatttacca gcacaccact agtgccagca acaagaagga gctggagctg    180

gatatctgcc agagattacc agaaattaga tggaaacttt tcttgcttat tttcctaatc    240

agattctaca tgcgcacaaa tcccttctac ccggaagttg agctcaattt catttctgtt    300

ttctggccac aactgccaaa tgggcttgaa gctgcttacg aatttgccga cagagatgaa    360

gtccggtttt tcaaagggaa taagtactgg gctgttcagg acagaatgt gctacacgga    420

taccccaagg acatctacag ctcctttggc ttccctagaa ctgtgaagca tatcgatgct    480

gctctttctg aggaaaacac tggaaaaacc tacttctttg ttgctaacaa atactggagg    540

tatgatgaat ataaacgatc tatggatcca ggttatccca aaatgatagc acatgacttt    600

cctggaattg gccacaaagt tgatgcagtt ttcatgaaag atggattttt ctatttcttt    660

catggaacaa gacaatacaa atttgatcct aaaacgaaga gaattttgac tctccagaaa    720

gctaatagct ggttcaactg caggaaaaat tgaacattac taatttgaat ggaaaacaca    780

tggtgtgagt ccaaagaagg tgttttcctg aagaactgtc tattttctca gtcattttta    840

acctctagag tcactgatac acagaatata atcttattta tacctcagtt tgcatatttt    900

tttactattt agaatgtagc ccttttgta ctgatataat ttagttccac aaatggtggg    960

tacaaaaagt caagtttgtg gcttatggat tcatataggc cagagttgca aagatctttt   1020

ccagagtatg caactctgac gttgatccca gagagcagct tcagtgacaa acatatcctt   1080

tcaagacaga aagagacagg agacatgagt cttgccgga ggaaaagcag ctcaagaaca    1140

catgtgcagt cactggtgtc accctggata ggcaagggat aactcttcta acacaaaata   1200

agtgttttat gtttggaata aagtcaacct tgtttctact gttttataaa aaaaaaa      1257
```

```
<210>  139
<211>  2110
<212>  DNA
<213>  Homo sapien
```

```
<400>  139
caaggacccc ctggtgaacc tgggcaagct ggtccttcag gccctccagg acctcctggt     60

gctataggtc catctggtcc tgctggaaaa gatggagaat caggtagacc cggacgacct    120
```

```
ggagagcgag gattgcctgg acctccaggt atcaaaggtc cagctgggat acctggattc    180

cctggtatga aaggacacag aggcttcgat ggacgaaatg gagaaaaggg tgaaacaggt    240

gctcctggat taaagggtga aaatggtctt ccaggcgaaa atggagctcc tggacccatg    300

ggtccaagag gggctcctgg tgagcgagga cggccaggac ttcctggggc tgcaggtgct    360

cggggtaatg acggtgctcg aggcagtgat ggtcaaccag gccctcctgg ttctcctgga    420

actgccggat tccctggatc ccctggtgct aagggtgaag ttggacctgc agggtctcct    480

ggttcaaatg gtgcccctgg acaaagagga gaacctggac ctcagggaca cgctggtgct    540

caaggtcctc ctggccctcc tgggattaat ggtagtcctg gtggtaaagg cgaaatgggt    600

cccgctggca ttcctggagc tcctggactg atgggagccc ggggtcctcc aggaccagcc    660

ggtgctaatg gtgctcctgg actgcgaggt ggtgcaggtg agcctggtaa gaatggtgcc    720

aaaggagagc ccggaccacg tggtgaacgc ggtgaggctg gtattccagg tgttccagga    780

gctaaaggcg aagatggcaa ggatggatca cctggagaac ctggtgcaaa tgggcttcca    840

ggagctgcag gagaaagggg tgcccctggg ttccgaggac ctgctggacc aaatggcatc    900

ccaggagaaa agggtcctgc tggagagcgt ggtgctccag ccctgcagg gcccagagga    960

gctgctggag aacctggcag agatggcgtc cctggaggtc caggaatgag gggcatgccc    1020

ggaagtccag gaggaccagg aagtgatggg aaaccagggc ctcccggaag tcaaggagaa    1080

agtggtcgac caggtcctcc tgggccatct ggtccccgag gtcagcctgg tgtcatgggc    1140

ttccccggtc ctaaaggaaa tgatggtgct cctggtaaga atggagaacg aggtggccct    1200

ggaggacctg ccctcagggg tcctcctgga aagaatggtg aaactggacc tcagggaccc    1260

ccagggccta ctgggcctgg tggtgacaaa ggagacacag accccctgg tccacaagga    1320

ttacaaggct tgcctggtac aggtggtcct ccaggagaaa atggaaaacc tgggggaacca    1380

ggtccaaagg gtgatgccgg tgcacctgga gctccaggag caagggtga tgctggtgcc    1440

cctggtgaac gtggacctcc tggattggca ggggccccag acttagagg tggagctggt    1500

cccctggtc ccgaaggagg aaagggtgct gctggtcctc ctgggccacc tggtgctgct    1560

ggtactcctg gtctgcaagg aatgcctgga gaaagaggag gtcttggaag tccctggtcc    1620

tcccagcgct ggtttcgact tcagcttcct gccccagcca cctcaagaga aggctcacga    1680

tggtggccgc tactaccggg ctgatgatgc caatgtggtt cgtgaccgtg acctcgaggt    1740

ggacaccacc ctcaagagcc tgagccagca gatcgagaac atccggagcc cagagggcag    1800

ccgcaagaac cccgcccgca cctgccgtga cctcaagatg tgccactctg actggaagag    1860

tggagagtac tggattgacc ccaaccaagg ctgcaacctg gatgccatca aagtcttctg    1920
```

166

```
caacatggag actggtgaga cctgcgtgta ccccactcag cccagtgtgg cccagaagaa    1980

ctggtacatc aacaagaacc ocaaggacaa gaggcatgtc tggttcggcg agagcatgac    2040

cgatggaatt ccatttccag tttggcgggc agggcttcga cccttccgat gtggccatcc    2100

agctgacctt                                                           2110
```

<210> 140
<211> 829
<212> DNA
<213> Homo sapien

<400> 140

```
aaactacggt aggtagcgag gctgggtggt gtggtgtcta tcgaagatcc ctttgaccag     60

gatgactggg gagcttggca gaagttcaca gccagtgcag gaatccaggt agtgggggat    120

gatctcacag tgaccaaccc aaagaggatc gccaaggccg tgaacgagaa gtcctgcaac    180

tgcctcctgc tcaaagtcaa ccagattggc tccgtgaccg agtctcttca ggcgtgcaag    240

ctggcccagg ccaatggttg gggcgtcatg gtgtctcatc gttcggggga gactgaagat    300

accttcatcg ctgacctggt tgtggggctg tgcactgggc agatcaagac tggtgcccct    360

tgccgatctg agcgcttggc caagtacaac cagctcctca gaattgaaga ggagctgggc    420

agcaaggcta gtttgccggg caggaacttc agaaacccct tggccaagta agctgtgggc    480

aggcaagccc ttcggtcacc tgttggctac acagacccct ccctcgtgt cagctcaggc    540

agctcgaggc ccccgaccaa cacttgcagg ggtccctgct agttagcgcc ccaccgccgt    600

ggagttcgta ccgcttcctt agaacttcta cagaagccaa gctccctgga gccctgttgg    660

cagctctagc tttgcagtcg tgtaattggc ccaagtcatt gtttttctcg cctcactttc    720

caccaagtgt ctagagtcat gtgagcctcg tgtcatctcc ggggtggcca caggctagat    780

ccccggtggt tttgtgctca aaataaaaag cctcagtgac ccatgagaa               829
```

<210> 141
<211> 1313
<212> DNA
<213> Homo sapien

<400> 141

```
gggaatgagt gacggctctc ccgacgaatg gcgaggcgga ctgacggggg cgtgccccgg     60

aggcgggaag tgggtggggc tcgccttagc taggcaggaa gtcggcgcgg gcggcgcgga    120

cagtatctgt gggtacccgg agcacggaga tctcgccggc tttacgttca cctcggtgtc    180

tgcagcaccc tccgcttcct ctcctaggcg acgagaccca gtggctagaa gttcaccatg    240

tctattctca agatccatgc cagggagatc tttgactctc gcgggaatcc cactgttgag    300

gttgatctct tcacctcaaa aggtctcttc agagctgctg tgcccagtgg tgcttcaact    360
```

```
ggtatctatg aggccctaga gctccgggac aatgataaga ctcgctatat ggggaagggt    420

aagccttaga acccacagcc catggcctcc ctgcttccag ccccattcct ggccttgccc    480

agtcctgtcc tctctgggtg gcacttgcac ttgcaggttt atggcaggta aacctgctgt    540

gacccatgat gttgatggaa gcagtgcacc accttgtgga caggaaagtt ggtgtgtgga    600

ttccggggtt cccgagcctg catgctctgg gtcgagagtt ccaatgcttg cttctattgc    660

agtttgttcc caatctgcga aatactcctt cacggttagg acaggaaccc aagcatgaga    720

acagggcctg ttaactaaag aaaagtttcc ccatctccca ggagggttct gtgggccctc    780

cagagatcat cagcctcttc acgggctaga aaggatccag ggaaggtcta accaatgacc    840

tgccctgaat ggtgagctgc aggtgtgtca tttagtgtga ttttcctgtt gactgactca    900

tagggccct gctctgtggc agagctagcc tctggctgta ttcaaattga cttagtgtgt    960

gtgcaacatt gacctttcta gagatagaac atgtggccaa attacagaaa agcacatagg    1020

gctagatcac gcattctcag tggggcaccc ggaaaactcc aaaaaggctg cagggagggg    1080

acaatgatga aatcaggttg tgaaacactg ggctggtgtc gcagtggtgg tgctgggtgt    1140

tcagtcccgc tttaatgctg taagaagcac tctacacaca cgaacatgtt accatttgac    1200

cgttgtttaa tggcgtacat ggggacttag ccggagcagg atgatgctgt gccttgatgg    1260

taatgagtgc tcagtaagta agcatttgtg gaagattgaa cgcatggccc ctg          1313
```

<210> 142
<211> 331
<212> PRT
<213> Homo sapien

<400> 142

```
Met Glu Asn Pro Ser Pro Ala Ala Ala Leu Gly Lys Ala Leu Cys Ala
1               5                   10                  15


Leu Leu Leu Ala Thr Leu Gly Ala Ala Gly Gln Pro Leu Gly Gly Glu
            20                  25                  30


Ser Ile Cys Ser Ala Arg Ala Pro Ala Lys Tyr Ser Ile Thr Phe Thr
            35                  40                  45


Gly Lys Trp Ser Gln Thr Ala Phe Pro Lys Gln Tyr Pro Leu Phe Arg
        50                  55                  60


Pro Pro Ala Gln Trp Ser Ser Leu Leu Gly Ala Ala His Ser Ser Asp
65                  70                  75                  80
```

```
Tyr Ser Met Trp Arg Lys Asn Gln Tyr Val Ser Asn Gly Leu Arg Asp
                85              90              95

Phe Ala Glu Arg Gly Glu Ala Trp Ala Leu Met Lys Glu Ile Glu Ala
            100             105             110

Ala Gly Glu Ala Leu Gln Ser Val His Ala Val Phe Ser Ala Pro Ala
            115             120             125

Val Pro Ser Gly Thr Gly Gln Thr Ser Ala Glu Leu Glu Val Gln Arg
    130             135             140

Arg His Ser Leu Val Ser Phe Val Val Arg Ile Val Pro Ser Pro Asp
145             150             155             160

Trp Phe Val Gly Val Asp Ser Leu Asp Leu Cys Asp Gly Asp Arg Trp
            165             170             175

Arg Glu Gln Ala Ala Leu Asp Leu Tyr Pro Tyr Asp Ala Gly Thr Asp
            180             185             190

Ser Gly Phe Thr Phe Ser Ser Pro Asn Phe Ala Thr Ile Pro Gln Asp
            195             200             205

Thr Val Thr Glu Ile Thr Ser Ser Ser Pro Ser His Pro Ala Asn Ser
    210             215             220

Phe Tyr Tyr Pro Arg Leu Lys Ala Leu Pro Pro Ile Ala Arg Val Thr
225             230             235             240

Leu Val Arg Leu Arg Gln Ser Pro Arg Ala Phe Ile Pro Pro Ala Pro
            245             250             255

Val Leu Pro Ser Arg Asp Asn Glu Ile Val Asp Ser Ala Ser Val Pro
            260             265             270

Glu Thr Pro Leu Asp Cys Glu Val Ser Leu Trp Ser Ser Trp Gly Leu
    275             280             285

Cys Gly Gly His Cys Gly Arg Leu Gly Thr Lys Ser Arg Thr Arg Tyr
    290             295             300

Val Arg Val Gln Pro Ala Asn Asn Gly Ser Pro Cys Pro Glu Leu Glu
305             310             315             320

Glu Glu Ala Glu Cys Val Pro Asp Asn Cys Val
```

325 . 　　　　　　　　　　330

<210> 143
<211> 518
<212> PRT
<213> Homo sapien

<400> 143

Arg Cys Asp Ser Cys Thr Leu Phe Ala Val Glu Ser Ile Leu Gln Gly
1　　　　　　　　5　　　　　　　　　10　　　　　　　　　15

His Ser Pro Glu Glu Arg Met Lys Gly Gly Ser Arg Gln Tyr Leu Arg
　　　　　　　20　　　　　　　　　25　　　　　　　　　30

Asp Ser Val Leu Ser Asp Thr His Pro Gln Val Thr Cys Val Ser Gln
　　　　　　　35　　　　　　　　　40　　　　　　　　　45

Leu Thr Arg Lys Leu Ala Arg Met Ala Leu Cys Gly His Arg Val Thr
　　　50　　　　　　　　　55　　　　　　　　　60

Ala Met Leu Gln Gly Thr Cys Gly Gly Leu Gly Thr Gln Pro Pro His
65　　　　　　　　　70　　　　　　　　　75　　　　　　　　　80

Ser Ser Gly Leu Cys Ser Gln Ala Pro Trp Pro Gly Ala Gly Gln Val
　　　　　　　85　　　　　　　　　90　　　　　　　　　95

Leu Met Ser Ile Leu Leu Ala Leu Pro Gly Thr Cys Trp Thr Gly Gln
　　　　　　　100　　　　　　　　　105　　　　　　　　　110

Ala Gly Asn Ala Gly Ala Glu Trp Gln Phe Pro Pro Tyr Ser Ala Gly
　　　　　　　115　　　　　　　　　120　　　　　　　　　125

Trp Gln Pro Leu Ala Ser Arg Ser Ala Cys Gly Leu Glu Arg Ile Ala
　　　130　　　　　　　　　135　　　　　　　　　140

Gly Ser Trp Val Arg Ala Cys Trp Leu Trp Val Ser Gly Ser His Leu
145　　　　　　　　　150　　　　　　　　　155　　　　　　　　　160

Ile Trp Val Trp Asp Ser Gln Cys Arg Pro Gln Thr Thr Ala Asp Phe
　　　　　　　165　　　　　　　　　170　　　　　　　　　175

Arg Leu Ser Arg Gly Gly Thr Gly Ala His Gln Pro Gly His Gly Pro
　　　　　　　180　　　　　　　　　185　　　　　　　　　190

Arg Arg Pro Pro Pro Ser Met Leu Leu Ala Gly Val Glu Ala Gly Thr
　　　　　　　195　　　　　　　　　200　　　　　　　　　205

Gly Pro Pro His Thr Cys Pro Pro Ser His Val Val Gly Thr Asp Val
    210   215   220

Val Leu Arg Ser Ser Ser Asn Tyr Lys Leu Thr Val Ser Arg Pro Trp
225   230   235   240

Lys Gln Gly Pro Gly Gln Val Arg Gln Glu Ala Ala Trp Leu Ala Gly
            245   250   255

Thr Thr Pro Gln Thr Glu Thr Val Pro Ser Pro Gly Ser Leu Leu Ile
            260   265   270

Trp Asp Glu Leu Gly Leu Pro Val Pro Ala Ser Val Leu Pro Leu Pro
    275   280   285

Ser Ala Gly Leu Gly Ser Ser Leu Ile Cys Pro Arg Gly Cys Pro Ile
    290   295   300

Pro Ser Arg Cys Pro Arg Ala Thr Tyr Pro Thr Gly Arg Arg Ala Ser
305   310   315   320

Thr Val Arg Gly Val Gln Leu Val Trp Arg Glu Glu Pro Leu Val Gly
            325   330   335

Arg Gly Ser Arg Glu Val Arg Phe Ala Pro His Leu Gly Ala Leu Gly
            340   345   350

His Ser Gly Gln Gly Ser Thr Trp Pro Val Pro Trp Val Cys His Asp
            355   360   365

Val Gly Val Pro Pro Pro Gln Gly Leu Glu Arg Gln Leu Arg Leu Leu
    370   375   380

Arg Arg Asn Ala Gln Leu Gln Ser Leu Gly Cys Val Arg Gly Cys Tyr
385   390   395   400

Gly Ala Ile Pro Ser Cys Arg Ser Leu Cys Asp Cys Ala Glu Lys Arg
            405   410   415

Lys Cys Pro Arg Arg Val Gly Val Ala Ser Asp Glu Cys Thr Arg Trp
            420   425   430

Trp Glu Val Ala Ser Val Cys Thr Lys Arg Leu Phe Thr Arg Ala Phe
    435   440   445

```
Thr Ser Val Ser Pro Leu Leu Gly Pro Val Pro Glu Thr Pro Leu Asp
    450             455             460

Cys Glu Val Ser Leu Trp Ser Ser Trp Gly Leu Cys Gly Gly His Cys
465             470             475             480

Gly Arg Leu Gly Thr Lys Ser Arg Thr Arg Tyr Val Arg Val Gln Pro
            485             490             495

Ala Asn Asn Gly Ser Pro Cys Pro Glu Leu Glu Glu Glu Ala Glu Cys
            500             505             510

Val Pro Asp Asn Cys Val
        515
```

```
<210>  144
<211>  298
<212>  PRT
<213>  Homo sapien

<400>  144
```

```
Met Glu Asn Pro Ser Pro Ala Ala Ala Leu Gly Lys Ala Leu Cys Ala
1               5               10              15

Leu Leu Leu Ala Thr Leu Gly Ala Ala Gly Gln Pro Leu Gly Gly Glu
            20              25              30

Ser Ile Cys Ser Ala Arg Ala Pro Ala Lys Tyr Ser Ile Thr Phe Thr
            35              40              45

Gly Lys Trp Ser Gln Thr Ala Phe Pro Lys Gln Tyr Pro Leu Phe Arg
    50              55              60

Pro Pro Ala Gln Trp Ser Ser Leu Leu Gly Ala Ala His Ser Ser Asp
65              70              75              80

Tyr Ser Met Trp Arg Lys Asn Gln Tyr Val Ser Asn Gly Leu Arg Asp
            85              90              95

Phe Ala Glu Arg Gly Glu Ala Trp Ala Leu Met Lys Glu Ile Glu Ala
            100             105             110

Ala Gly Glu Ala Leu Gln Ser Val His Glu Val Phe Ser Ala Pro Ala
        115             120             125

Val Pro Ser Gly Thr Gly Gln Thr Ser Ala Glu Leu Glu Val Gln Arg
    130             135             140
```

Arg His Ser Leu Val Ser Phe Val Val Arg Ile Val Pro Ser Pro Asp
145   150   155   160

Trp Phe Val Gly Val Asp Ser Leu Asp Leu Cys Asp Gly Asp Arg Trp
                165   170   175

Arg Glu Gln Ala Ala Leu Asp Leu Tyr Pro Tyr Asp Ala Gly Thr Asp
            180   185   190

Ser Gly Phe Thr Phe Ser Ser Pro Asn Phe Ala Thr Ile Pro Gln Asp
            195   200   205

Thr Val Thr Glu Ile Thr Ser Ser Ser Pro Ser His Pro Ala Asn Ser
210   215   220

Phe Tyr Tyr Pro Arg Leu Lys Ala Leu Pro Pro Ile Ala Arg Val Thr
225   230   235   240

Leu Leu Arg Leu Arg Gln Ser Pro Arg Ala Phe Ile Pro Pro Ala Pro
                245   250   255

Val Leu Pro Ser Arg Asp Asn Glu Ile Val Asp Ser Ala Ser Gly Asn
            260   265   270

Gly His Thr Gly His Met Gly His Thr Ala Ala Pro Asn Pro Ala Thr
            275   280   285

Gly Arg Pro Pro Asn Pro Asn Leu Arg Leu
    290   295

<210> 145
<211> 504
<212> PRT
<213> Homo sapien

<400> 145

Arg Cys Asp Ser Cys Thr Leu Phe Ala Val Glu Ser Ile Leu Gln Gly
1   5   10   15

His Ser Pro Glu Glu Arg Met Lys Gly Gly Ser Arg Gln Tyr Leu Arg
            20   25   30

Asp Ser Val Leu Ser Asp Thr His Pro Gln Val Thr Cys Val Ser Gln
            35   40   45

```
Leu Thr Arg Lys Leu Ala Arg Met Ala Leu Cys Gly His Arg Val Thr
    50              55              60

Ala Met Leu Gln Gly Thr Cys Gly Gly Leu Gly Thr Gln Pro Pro His
65              70              75              80

Ser Ser Gly Leu Cys Ser Gln Ala Pro Trp Pro Gly Ala Gly Gln Val
            85              90              95

Leu Met Ser Ile Leu Leu Ala Leu Pro Gly Thr Cys Trp Thr Gly Gln
            100             105             110

Ala Gly Asn Ala Gly Ala Glu Trp Gln Phe Pro Pro Tyr Ser Ala Gly
        115             120             125

Trp Gln Pro Leu Ala Ser Arg Ser Ala Cys Gly Leu Glu Arg Ile Ala
    130             135             140

Gly Ser Trp Val Arg Ala Cys Trp Leu Trp Val Ser Gly Ser His Leu
145             150             155             160

Ile Trp Val Trp Asp Ser Gln Cys Arg Pro Gln Thr Thr Ala Asp Phe
            165             170             175

Arg Leu Ser Arg Gly Gly Thr Gly Ala His Gln Pro Gly His Gly Pro
            180             185             190

Arg Arg Pro Pro Pro Ser Met Leu Leu Ala Gly Val Glu Ala Gly Thr
    195             200             205

Gly Pro Pro His Thr Cys Pro Pro Ser His Val Val Gly Thr Asp Val
    210             215             220

Val Leu Arg Ser Ser Ser Asn Tyr Lys Leu Thr Val Ser Arg Pro Trp
225             230             235             240

Lys Gln Gly Pro Gly Gln Val Arg Gln Glu Ala Ala Trp Leu Ala Gly
            245             250             255

Thr Thr Pro Gln Thr Glu Thr Val Pro Ser Pro Gly Ser Leu Leu Ile
            260             265             270

Trp Asp Glu Leu Gly Leu Pro Val Pro Ala Ser Val Leu Pro Leu Pro
    275             280             285

Ser Ala Gly Leu Gly Ser Ser Leu Ile Cys Pro Arg Gly Cys Pro Ile
```

```
                290              295              300

      Pro Ser Arg Cys Pro Arg Ala Thr Tyr Pro Thr Gly Arg Arg Ala Ser
      305              310              315              320

      Thr Val Arg Gly Val Gln Leu Val Trp Arg Glu Glu Pro Leu Val Gly
                       325              330              335

      Arg Gly Ser Arg Glu Val Arg Phe Ala Pro His Leu Gly Ala Leu Gly
                   340              345              350

      His Ser Gly Gln Gly Ser Thr Trp Pro Val Pro Trp Ala Arg Arg Gly
               355              360              365

      Ile Lys Ser Ala Val Ala Lys Gln Lys Gln Tyr Cys Arg Gly Arg Val
          370              375              380

      Gly Arg Asp Cys Ala Met Ser Ser Glu Gln Glu Ala Gly His Gly Glu
      385              390              395              400

      Lys Gly Gly Arg Arg Thr Glu Pro Ala Val Pro Ala Glu Gly Pro Glu
                   405              410              415

      Trp Ala Val Gly Thr Glu His Arg Pro Pro Pro Thr Arg Val Ser Pro
               420              425              430

      Val Thr Ser Gly Phe Pro Arg Ala Glu Ala Gly Met Gly Met Trp Arg
               435              440              445

      Leu Ala Pro Arg Arg Leu Arg Gln Val His Ala Lys Pro Ala Trp Leu
          450              455              460

      Ser Ser Gly Phe Leu Leu Thr Arg Trp Met Pro Val Pro Arg Pro Pro
      465              470              475              480

      Asp Arg Ala Leu Gln His Trp Arg Gly Leu Trp Trp Gly Pro Arg Cys
                   485              490              495

      Arg Thr Gly Thr Ala Ser Ala His
                   500
```

<210> 146
<211> 829
<212> PRT
<213> Homo sapien

<400> 146

Met Glu Asn Pro Ser Pro Ala Ala Ala Leu Gly Lys Ala Leu Cys Ala
1   5   10   15

Leu Leu Leu Ala Thr Leu Gly Ala Ala Gly Gln Pro Leu Gly Gly Glu
              20   25   30

Ser Ile Cys Ser Ala Arg Ala Pro Ala Lys Tyr Ser Ile Thr Phe Thr
          35   40   45

Gly Lys Trp Ser Gln Thr Ala Phe Pro Lys Gln Tyr Pro Leu Phe Arg
    50   55   60

Pro Pro Ala Gln Trp Ser Ser Leu Leu Gly Ala Ala His Ser Ser Asp
65   70   75   80

Tyr Ser Met Trp Arg Lys Asn Gln Tyr Val Ser Asn Gly Leu Arg Asp
              85   90   95

Phe Ala Glu Arg Gly Glu Ala Trp Ala Leu Met Lys Glu Ile Glu Ala
          100   105   110

Ala Gly Glu Ala Leu Gln Ser Val His Glu Val Phe Ser Ala Pro Ala
    115   120   125

Val Pro Ser Gly Thr Gly Gln Thr Ser Ala Glu Leu Glu Val Gln Arg
    130   135   140

Arg His Ser Leu Val Ser Phe Val Val Arg Ile Val Pro Ser Pro Asp
145   150   155   160

Trp Phe Val Gly Val Asp Ser Leu Asp Leu Cys Asp Gly Asp Arg Trp
              165   170   175

Arg Glu Gln Ala Ala Leu Asp Leu Tyr Pro Tyr Asp Ala Gly Thr Asp
          180   185   190

Ser Gly Phe Thr Phe Ser Ser Pro Asn Phe Ala Thr Ile Pro Gln Asp
    195   200   205

Thr Val Thr Glu Ile Thr Ser Ser Ser Pro Ser His Pro Ala Asn Ser
    210   215   220

Phe Tyr Tyr Pro Arg Leu Lys Ala Leu Pro Pro Ile Ala Arg Val Thr
225   230   235   240

Leu Leu Arg Leu Arg Gln Ser Pro Arg Ala Phe Ile Pro Pro Ala Pro
        245   250   255

Val Leu Pro Ser Arg Asp Asn Glu Ile Val Asp Ser Ala Ser Gly Asn
        260   265   270

Gly His Thr Gly His Met Gly His Thr Ala Ala Pro Asn Pro Ala Thr
        275   280   285

Gly Arg Pro Pro Asn Pro Asn Gln Gly Ser Glu Lys Phe Gln Val Gly
    290   295   300

Ile Arg Ser Ala Tyr Cys Lys Met Val Pro Arg Arg Phe Arg Ile Leu
305   310   315   320

Leu Ile His Thr Leu Lys Met Asp Ser Cys Thr Leu Phe Ala Val Glu
                325   330   335

Ser Ile Leu Gln Gly His Ser Pro Glu Glu Arg Met Lys Gly Gly Ser
        340   345   350

Arg Gln Tyr Leu Arg Asp Ser Val Leu Ser Asp Thr His Pro Gln Val
        355   360   365

Thr Cys Val Ser Gln Leu Thr Arg Lys Leu Ala Arg Met Ala Leu Cys
370   375   380

Gly His Arg Val Thr Ala Met Leu Gln Gly Thr Cys Gly Gly Leu Gly
385   390   395   400

Thr Gln Pro Pro His Ser Ser Gly Leu Cys Ser Gln Ala Pro Trp Pro
                405   410   415

Gly Ala Gly Gln Val Leu Met Ser Ile Leu Leu Ala Leu Pro Gly Thr
        420   425   430

Cys Trp Thr Gly Gln Ala Gly Asn Ala Gly Ala Glu Trp Gln Phe Pro
        435   440   445

Pro Tyr Ser Ala Gly Trp Gln Pro Leu Ala Ser Arg Ser Ala Cys Gly
        450   455   460

Leu Glu Arg Ile Ala Gly Ser Trp Val Arg Ala Cys Trp Leu Trp Val
465   470   475   480

Ser Gly Ser His Leu Ile Trp Val Trp Asp Ser Gln Cys Arg Pro Gln

```
                       485                    490                     495

Thr Thr  Ala  Asp  Phe  Arg  Leu  Ser  Arg  Gly  Gly  Thr  Gly  Ala  His  Gln
             500                    505                     510

Pro  Gly  His  Gly  Pro  Arg  Arg  Pro  Pro  Pro  Ser  Met  Leu  Leu  Ala  Gly
             515                    520                     525

Val  Glu  Ala  Gly  Thr  Gly  Pro  Pro  His  Thr  Cys  Pro  Pro  Ser  His  Val
             530                    535                     540

Val  Gly  Thr  Asp  Val  Val  Leu  Arg  Ser  Ser  Ser  Asn  Tyr  Lys  Leu  Thr
     545                    550                    555                     560

Val  Ser  Arg  Pro  Trp  Lys  Gln  Gly  Pro  Gly  Gln  Val  Arg  Gln  Glu  Ala
                       565                    570                     575

Ala  Trp  Leu  Ala  Gly  Thr  Thr  Pro  Gln  Thr  Glu  Thr  Val  Pro  Ser  Pro
             580                    585                     590

Gly  Ser  Leu  Leu  Ile  Trp  Asp  Glu  Leu  Gly  Leu  Pro  Val  Pro  Ala  Ser
             595                    600                     605

Val  Leu  Pro  Leu  Pro  Ser  Ala  Gly  Leu  Gly  Ser  Ser  Leu  Ile  Cys  Pro
     610                    615                    620

Arg  Gly  Cys  Pro  Ile  Pro  Ser  Arg  Cys  Pro  Arg  Ala  Thr  Tyr  Pro  Thr
     625                    630                    635                     640

Gly  Arg  Arg  Ala  Ser  Thr  Val  Arg  Gly  Val  Gln  Leu  Val  Trp  Arg  Glu
                       645                    650                     655

Glu  Pro  Leu  Val  Gly  Arg  Gly  Ser  Arg  Glu  Val  Arg  Phe  Ala  Pro  His
             660                    665                     670

Leu  Gly  Ala  Leu  Gly  His  Ser  Gly  Gln  Gly  Ser  Thr  Trp  Pro  Val  Pro
             675                    680                     685

Trp  Ala  Arg  Arg  Gly  Ile  Lys  Ser  Ala  Val  Ala  Lys  Gln  Lys  Gln  Tyr
     690                    695                    700

Cys  Arg  Gly  Arg  Val  Gly  Arg  Asp  Cys  Ala  Met  Ser  Ser  Glu  Gln  Glu
     705                    710                    715                     720

Ala  Gly  His  Gly  Glu  Lys  Gly  Gly  Arg  Arg  Thr  Glu  Pro  Ala  Val  Pro
                       725                    730                     735
```

```
Ala Glu Gly Pro Glu Trp Ala Val Gly Thr Glu His Arg Pro Pro Pro
            740                 745                 750

Thr Arg Val Ser Pro Val Thr Ser Gly Phe Pro Arg Ala Glu Ala Gly
        755                 760                 765

Met Gly Met Trp Arg Leu Ala Pro Arg Arg Leu Arg Gln Val His Ala
    770                 775                 780

Lys Pro Ala Trp Leu Ser Ser Gly Phe Leu Leu Thr Arg Trp Met Pro
785                 790                 795                 800

Val Pro Arg Pro Pro Asp Arg Ala Leu Gln His Trp Arg Gly Leu Trp
            805                 810                 815

Trp Gly Pro Arg Cys Arg Thr Gly Thr Ala Ser Ala His
            820                 825
```

<210> 147
<211> 504
<212> PRT
<213> Homo sapien

<400> 147

```
Arg Cys Asp Ser Cys Thr Leu Phe Ala Val Glu Ser Ile Leu Gln Gly
1               5               10                  15

His Ser Pro Glu Glu Arg Met Lys Gly Gly Ser Arg Gln Tyr Leu Arg
            20              25                  30

Asp Ser Val Leu Ser Asp Thr His Pro Gln Val Thr Cys Val Ser Gln
        35                  40                  45

Leu Thr Arg Lys Leu Ala Arg Met Ala Leu Cys Gly His Arg Val Thr
    50                  55                  60

Ala Met Leu Gln Gly Thr Cys Gly Gly Leu Gly Thr Gln Pro Pro His
65                  70                  75                  80

Ser Ser Gly Leu Cys Ser Gln Ala Pro Trp Pro Gly Ala Gly Gln Val
                85                  90                  95

Leu Met Ser Ile Leu Leu Ala Leu Pro Gly Thr Cys Trp Thr Gly Gln
            100                 105                 110
```

Ala Gly Asn Ala Gly Ala Glu Trp Gln Phe Pro Pro Tyr Ser Ala Gly
        115   120   125

Trp Gln Pro Leu Ala Ser Arg Ser Ala Cys Gly Leu Glu Arg Ile Ala
    130   135   140

Gly Ser Trp Val Arg Ala Cys Trp Leu Trp Val Ser Gly Ser His Leu
145   150   155   160

Ile Trp Val Trp Asp Ser Gln Cys Arg Pro Gln Thr Thr Ala Asp Phe
                165   170   175

Arg Leu Ser Arg Gly Gly Thr Gly Ala His Gln Pro Gly His Gly Pro
            180   185   190

Arg Arg Pro Pro Pro Ser Met Leu Leu Ala Gly Val Glu Ala Gly Thr
    195   200   205

Gly Pro Pro His Thr Cys Pro Pro Ser His Val Val Gly Thr Asp Val
210   215   220

Val Leu Arg Ser Ser Ser Asn Tyr Lys Leu Thr Val Ser Arg Pro Trp
225   230   235   240

Lys Gln Gly Pro Gly Gln Val Arg Gln Glu Ala Ala Trp Leu Ala Gly
            245   250   255

Thr Thr Pro Gln Thr Glu Thr Val Pro Ser Pro Gly Ser Leu Leu Ile
            260   265   270

Trp Asp Glu Leu Gly Leu Pro Val Pro Ala Ser Val Leu Pro Leu Pro
    275   280   285

Ser Ala Gly Leu Gly Ser Ser Leu Ile Cys Pro Arg Gly Cys Pro Ile
290   295   300

Pro Ser Arg Cys Pro Arg Ala Thr Tyr Pro Thr Gly Arg Arg Ala Ser
305   310   315   320

Thr Val Arg Gly Val Gln Leu Val Trp Arg Glu Glu Pro Leu Val Gly
            325   330   335

Arg Gly Ser Arg Glu Val Arg Phe Ala Pro His Leu Gly Ala Leu Gly
        340   345   350

His Ser Gly Gln Gly Ser Thr Trp Pro Val Pro Trp Ala Arg Arg Gly

180

355   360   365

Ile Lys Ser Ala Val Ala Lys Gln Lys Gln Tyr Cys Arg Gly Arg Val
    370   375   380

Gly Arg Asp Cys Ala Met Ser Ser Glu Gln Glu Ala Gly His Gly Glu
385   390   395   400

Lys Gly Gly Arg Arg Thr Glu Pro Ala Val Pro Ala Glu Gly Pro Glu
                405   410   415

Trp Ala Val Gly Thr Glu His Arg Pro Pro Pro Thr Arg Val Ser Pro
              420   425   430

Val Thr Ser Gly Phe Pro Arg Ala Glu Ala Gly Met Gly Met Trp Arg
         435   440   445

Leu Ala Pro Arg Arg Leu Arg Gln Val His Ala Lys Pro Ala Trp Leu
    450   455   460

Ser Ser Gly Phe Leu Leu Thr Arg Trp Met Pro Val Pro Arg Pro Pro
465   470   475   480

Asp Arg Ala Leu Gln His Trp Arg Gly Leu Trp Trp Gly Pro Arg Cys
              485   490   495

Arg Thr Gly Thr Ala Ser Ala His
              500

<210> 148
<211> 935
<212> PRT
<213> Homo sapien

<400> 148

Gly Gly Ile Gly Arg Gly Asp Lys Glu Arg Gly Ala Ala Ala Leu Pro
1   5   10   15

Gly Glu Glu Gly Asp Pro Thr Arg Gly Arg Ser Leu Gly Arg Ala Ser
         20   25   30

Trp Glu Ser Gly Ser Pro Arg Arg Pro Arg Ser Pro Phe Ser Ser Phe
         35   40   45

Leu Pro Arg Pro Ile Cys Leu Ser Leu Glu Ala Arg Pro Cys Ser Ile
    50   55   60

Glu Asp Arg Arg Asn Trp Ser Leu Ile Gly Arg Pro Gly Ala Pro Ala
65   70   75   80

Ser Gly Leu Asn Arg Ser Ser Gly Leu Trp Leu Gly Pro Asp Arg Cys
                85   90   95

Arg Pro Arg Ser Arg Cys Ser Cys Arg Val Met Glu Asn Pro Ser Pro
            100   105   110

Ala Ala Ala Leu Gly Lys Ala Leu Cys Ala Leu Leu Leu Ala Thr Leu
        115   120   125

Gly Ala Ala Gly Gln Pro Leu Gly Gly Glu Ser Ile Cys Ser Ala Arg
    130   135   140

Ala Pro Ala Lys Tyr Ser Ile Thr Phe Thr Gly Lys Trp Ser Gln Thr
145   150   155   160

Ala Phe Pro Lys Gln Tyr Pro Leu Phe Arg Pro Pro Ala Gln Trp Ser
            165   170   175

Ser Leu Leu Gly Ala Ala His Ser Ser Asp Tyr Ser Met Trp Arg Lys
        180   185   190

Asn Gln Tyr Val Ser Asn Gly Leu Arg Asp Phe Ala Glu Arg Gly Glu
        195   200   205

Ala Trp Ala Leu Met Lys Glu Ile Glu Ala Ala Gly Glu Ala Leu Gln
    210   215   220

Ser Val His Glu Val Phe Ser Ala Pro Ala Val Pro Ser Gly Thr Gly
225   230   235   240

Gln Thr Ser Ala Glu Leu Glu Val Gln Arg Arg His Ser Leu Val Ser
            245   250   255

Phe Val Val Arg Ile Val Pro Ser Pro Asp Trp Phe Val Gly Val Asp
            260   265   270

Ser Leu Asp Leu Cys Asp Gly Asp Arg Trp Arg Glu Gln Ala Ala Leu
    275   280   285

Asp Leu Tyr Pro Tyr Asp Ala Gly Thr Asp Ser Gly Phe Thr Phe Ser
    290   295   300

Ser Pro Asn Phe Ala Thr Ile Pro Gln Asp Thr Val Thr Glu Ile Thr
305   310   315   320

Ser Ser Ser Pro Ser His Pro Ala Asn Ser Phe Tyr Tyr Pro Arg Leu
            325   330   335

Lys Ala Leu Pro Pro Ile Ala Arg Val Thr Leu Leu Arg Leu Arg Gln
            340   345   350

Ser Pro Arg Ala Phe Ile Pro Pro Ala Pro Val Leu Pro Ser Arg Asp
        355   360   365

Asn Glu Ile Val Asp Ser Ala Ser Gly Asn Gly His Thr Gly His Met
    370   375   380

Gly His Thr Ala Ala Pro Asn Pro Ala Thr Gly Arg Pro Pro Asn Pro
385   390   395   400

Asn Gln Gly Ser Glu Lys Phe Gln Val Gly Ile Arg Ser Ala Tyr Cys
            405   410   415

Lys Met Val Pro Arg Arg Phe Arg Ile Leu Leu Ile His Thr Leu Lys
            420   425   430

Met Asp Ser Cys Thr Leu Phe Ala Val Glu Ser Ile Leu Gln Gly His
        435   440   445

Ser Pro Glu Glu Arg Met Lys Gly Gly Ser Arg Gln Tyr Leu Arg Asp
    450   455   460

Ser Val Leu Ser Asp Thr His Pro Gln Val Thr Cys Val Ser Gln Leu
465   470   475   480

Thr Arg Lys Leu Ala Arg Met Ala Leu Cys Gly His Arg Val Thr Ala
            485   490   495

Met Leu Gln Gly Thr Cys Gly Gly Leu Gly Thr Gln Pro Pro His Ser
        500   505   510

Ser Gly Leu Cys Ser Gln Ala Pro Trp Pro Gly Ala Gly Gln Val Leu
        515   520   525

Met Ser Ile Leu Leu Ala Leu Pro Gly Thr Cys Trp Thr Gly Gln Ala
        530   535   540

Gly Asn Ala Gly Ala Glu Trp Gln Phe Pro Pro Tyr Ser Ala Gly Trp

| | | 545 | | | | | 550 | | | | | 555 | | | | 560 |

Gln Pro Leu Ala Ser Arg Ser Ala Cys Gly Leu Glu Arg Ile Ala Gly
            565   570   575

Ser Trp Val Arg Ala Cys Trp Leu Trp Val Ser Gly Ser His Leu Ile
            580   585   590

Trp Val Trp Asp Ser Gln Cys Arg Pro Gln Thr Thr Ala Asp Phe Arg
            595   600   605

Leu Ser Arg Gly Gly Thr Gly Ala His Gln Pro Gly His Gly Pro Arg
610   615   620

Arg Pro Pro Pro Ser Met Leu Leu Ala Gly Val Glu Ala Gly Thr Gly
625   630   635   640

Pro Pro His Thr Cys Pro Pro Ser His Val Val Gly Thr Asp Val Val
            645   650   655

Leu Arg Ser Ser Ser Asn Tyr Lys Leu Thr Val Ser Arg Pro Trp Lys
            660   665   670

Gln Gly Pro Gly Gln Val Arg Gln Glu Ala Ala Trp Leu Ala Gly Thr
            675   680   685

Thr Pro Gln Thr Glu Thr Val Pro Ser Pro Gly Ser Leu Leu Ile Trp
690   695   700

Asp Glu Leu Gly Leu Pro Val Pro Ala Ser Val Leu Pro Leu Pro Ser
705   710   715   720

Ala Gly Leu Gly Ser Ser Leu Ile Cys Pro Arg Gly Cys Pro Ile Pro
            725   730   735

Ser Arg Cys Pro Arg Ala Thr Tyr Pro Thr Gly Arg Arg Ala Ser Thr
            740   745   750

Val Arg Gly Val Gln Leu Val Trp Arg Glu Glu Pro Leu Val Gly Arg
            755   760   765

Gly Ser Arg Glu Val Arg Phe Ala Pro His Leu Gly Ala Leu Gly His
            770   775   780

Ser Gly Gln Gly Ser Thr Trp Pro Val Pro Trp Ala Arg Arg Gly Ile
785   790   795   800

```
Lys Ser Ala Val Ala Lys Gln Lys Gln Tyr Cys Arg Gly Arg Val Gly
            805                 810                     815

Arg Asp Cys Ala Met Ser Ser Glu Gln Glu Ala Gly His Gly Glu Lys
            820                 825                     830

Gly Gly Arg Arg Thr Glu Pro Ala Val Pro Ala Glu Gly Pro Glu Trp
        835                 840                 845

Ala Val Gly Thr Glu His Arg Pro Pro Pro Thr Arg Val Ser Pro Val
    850                 855                 860

Thr Ser Gly Phe Pro Arg Ala Glu Ala Gly Met Gly Met Trp Arg Leu
865             870                 875                     880

Ala Pro Arg Arg Leu Arg Gln Val His Ala Lys Pro Ala Trp Leu Ser
            885                 890                     895

Ser Gly Phe Leu Leu Thr Arg Trp Met Pro Val Pro Arg Pro Pro Asp
            900                 905                 910

Arg Ala Leu Gln His Trp Arg Gly Leu Trp Trp Gly Pro Arg Cys Arg
        915                 920                 925

Thr Gly Thr Ala Ser Ala His
    930                 935


<210>  149
<211>  504
<212>  PRT
<213>  Homo sapien

<400>  149

Arg Cys Asp Ser Cys Thr Leu Phe Ala Val Glu Ser Ile Leu Gln Gly
1           5               10                  15

His Ser Pro Glu Glu Arg Met Lys Gly Gly Ser Arg Gln Tyr Leu Arg
            20              25                  30

Asp Ser Val Leu Ser Asp Thr His Pro Gln Val Thr Cys Val Ser Gln
            35              40                  45

Leu Thr Arg Lys Leu Ala Arg Met Ala Leu Cys Gly His Arg Val Thr
    50              55                  60
```

```
Ala Met Leu Gln Gly Thr Cys Gly Gly Leu Gly Thr Gln Pro Pro His
65                70                    75              80

Ser Ser Gly Leu Cys Ser Gln Ala Pro Trp Pro Gly Ala Gly Gln Val
            85              90                    95

Leu Met Ser Ile Leu Leu Ala Leu Pro Gly Thr Cys Trp Thr Gly Gln
            100             105             110

Ala Gly Asn Ala Gly Ala Glu Trp Gln Phe Pro Pro Tyr Ser Ala Gly
        115             120             125

Trp Gln Pro Leu Ala Ser Arg Ser Ala Cys Gly Leu Glu Arg Ile Ala
130             135             140

Gly Ser Trp Val Arg Ala Cys Trp Leu Trp Val Ser Gly Ser His Leu
145             150             155             160

Ile Trp Val Trp Asp Ser Gln Cys Arg Pro Gln Thr Thr Ala Asp Phe
            165             170             175

Arg Leu Ser Arg Gly Gly Thr Gly Ala His Gln Pro Gly His Gly Pro
        180             185             190

Arg Arg Pro Pro Pro Ser Met Leu Leu Ala Gly Val Glu Ala Gly Thr
        195             200             205

Gly Pro Pro His Thr Cys Pro Pro Ser His Val Val Gly Thr Asp Val
210             215             220

Val Leu Arg Ser Ser Ser Asn Tyr Lys Leu Thr Val Ser Arg Pro Trp
225             230             235             240

Lys Gln Gly Pro Gly Gln Val Arg Gln Glu Ala Ala Trp Leu Ala Gly
            245             250             255

Thr Thr Pro Gln Thr Glu Thr Val Pro Ser Pro Gly Ser Leu Leu Ile
            260             265             270

Trp Asp Glu Leu Gly Leu Pro Val Pro Ala Ser Val Leu Pro Leu Pro
            275             280             285

Ser Ala Gly Leu Gly Ser Ser Leu Ile Cys Pro Arg Gly Cys Pro Ile
290             295             300

Pro Ser Arg Cys Pro Arg Ala Thr Tyr Pro Thr Gly Arg Arg Ala Ser
```

```
        305                   310                   315                   320

Thr Val Arg Gly Val Gln Leu Val Trp Arg Glu Glu Pro Leu Val Gly
                325                   330                   335

Arg Gly Ser Arg Glu Val Arg Phe Ala Pro His Leu Gly Ala Leu Gly
                340                   345                   350

His Ser Gly Gln Gly Ser Thr Trp Pro Val Pro Trp Ala Arg Arg Gly
                355                   360                   365

Ile Lys Ser Ala Val Ala Lys Gln Lys Gln Tyr Cys Arg Gly Arg Val
                370                   375                   380

Gly Arg Asp Cys Ala Met Ser Ser Glu Gln Glu Ala Gly His Gly Glu
385                   390                   395                   400

Lys Gly Gly Arg Arg Thr Glu Pro Ala Val Pro Ala Glu Gly Pro Glu
                405                   410                   415

Trp Ala Val Gly Thr Glu His Arg Pro Pro Pro Thr Arg Val Ser Pro
                420                   425                   430

Val Thr Ser Gly Phe Pro Arg Ala Glu Ala Gly Met Gly Met Trp Arg
                435                   440                   445

Leu Ala Pro Arg Arg Leu Arg Gln Val His Ala Lys Pro Ala Trp Leu
                450                   455                   460

Ser Ser Gly Phe Leu Leu Thr Arg Trp Met Pro Val Pro Arg Pro Pro
465                   470                   475                   480

Asp Arg Ala Leu Gln His Trp Arg Gly Leu Trp Trp Gly Pro Arg Cys
                485                   490                   495

Arg Thr Gly Thr Ala Ser Ala His
                500
```

<210> 150
<211> 504
<212> PRT
<213> Homo sapien

<400> 150

```
Arg Cys Asp Ser Cys Thr Leu Phe Ala Val Glu Ser Ile Leu Gln Gly
1               5                   10                  15
```

His Ser Pro Glu Glu Arg Met Lys Gly Gly Ser Arg Gln Tyr Leu Arg
        20   25   30

Asp Ser Val Leu Ser Asp Thr His Pro Gln Val Thr Cys Val Ser Gln
        35   40   45

Leu Thr Arg Lys Leu Ala Arg Met Ala Leu Cys Gly His Arg Val Thr
    50   55   60

Ala Met Leu Gln Gly Thr Cys Gly Gly Leu Gly Thr Gln Pro Pro His
65   70   75   80

Ser Ser Gly Leu Cys Ser Gln Ala Pro Trp Pro Gly Ala Gly Gln Val
                85   90   95

Leu Met Ser Ile Leu Leu Ala Leu Pro Gly Thr Cys Trp Thr Gly Gln
            100   105   110

Ala Gly Asn Ala Gly Ala Glu Trp Gln Phe Pro Pro Tyr Ser Ala Gly
        115   120   125

Trp Gln Pro Leu Ala Ser Arg Ser Ala Cys Gly Leu Glu Arg Ile Ala
    130   135   140

Gly Ser Trp Val Arg Ala Cys Trp Leu Trp Val Ser Gly Ser His Leu
145   150   155   160

Ile Trp Val Trp Asp Ser Gln Cys Arg Pro Gln Thr Thr Ala Asp Phe
            165   170   175

Arg Leu Ser Arg Gly Gly Thr Gly Ala His Gln Pro Gly His Gly Pro
            180   185   190

Arg Arg Pro Pro Pro Ser Met Leu Leu Ala Gly Val Glu Ala Gly Thr
        195   200   205

Gly Pro Pro His Thr Cys Pro Pro Ser His Val Val Gly Thr Asp Val
    210   215   220

Val Leu Arg Ser Ser Ser Asn Tyr Lys Leu Thr Val Ser Arg Pro Trp
225   230   235   240

Lys Gln Gly Pro Gly Gln Val Arg Gln Glu Ala Ala Trp Leu Ala Gly
            245   250   255

Thr Thr Pro Gln Thr Glu Thr Val Pro Ser Pro Gly Ser Leu Leu Ile
        260   265   270

Trp Asp Glu Leu Gly Leu Pro Val Pro Ala Ser Val Leu Pro Leu Pro
    275   280   285

Ser Ala Gly Leu Gly Ser Ser Leu Ile Cys Pro Arg Gly Cys Pro Ile
    290   295   300

Pro Ser Arg Cys Pro Arg Ala Thr Tyr Pro Thr Gly Arg Arg Ala Ser
305   310   315   320

Thr Val Arg Gly Val Gln Leu Val Trp Arg Glu Glu Pro Leu Val Gly
            325   330   335

Arg Gly Ser Arg Glu Val Arg Phe Ala Pro His Leu Gly Ala Leu Gly
        340   345   350

His Ser Gly Gln Gly Ser Thr Trp Pro Val Pro Trp Ala Arg Arg Gly
        355   360   365

Ile Lys Ser Ala Val Ala Lys Gln Lys Gln Tyr Cys Arg Gly Arg Val
370   375   380

Gly Arg Asp Cys Ala Met Ser Ser Glu Gln Glu Ala Gly His Gly Glu
385   390   395   400

Lys Gly Gly Arg Arg Thr Glu Pro Ala Val Pro Ala Glu Gly Pro Glu
            405   410   415

Trp Ala Val Gly Thr Glu His Arg Pro Pro Pro Thr Arg Val Ser Pro
            420   425   430

Val Thr Ser Gly Phe Pro Arg Ala Glu Ala Gly Met Gly Met Trp Arg
        435   440   445

Leu Ala Pro Arg Arg Leu Arg Gln Val His Ala Lys Pro Ala Trp Leu
    450   455   460

Ser Ser Gly Phe Leu Leu Thr Arg Trp Met Pro Val Pro Arg Pro Pro
465   470   475   480

Asp Arg Ala Leu Gln His Trp Arg Gly Leu Trp Trp Gly Pro Arg Cys
            485   490   495

Arg Thr Gly Thr Ala Ser Ala His

500

<210> 151
<211> 290
<212> PRT
<213> Homo sapien

<400> 151

Gly Gly Ile Gly Arg Gly Asp Lys Glu Arg Gly Ala Ala Ala Leu Pro
1   5   10   15

Gly Glu Glu Gly Asp Pro Thr Arg Gly Arg Ser Leu Gly Arg Ala Ser
            20   25   30

Trp Glu Ser Gly Ser Pro Arg Arg Pro Arg Ser Pro Phe Ser Ser Phe
        35   40   45

Leu Pro Arg Pro Ile Cys Leu Ser Leu Glu Ala Arg Pro Cys Ser Ile
    50   55   60

Glu Asp Arg Arg Asn Trp Ser Leu Ile Gly Arg Pro Gly Ala Pro Ala
65   70   75   80

Ser Gly Leu Asn Arg Ser Ser Gly Leu Trp Leu Gly Pro Asp Arg Cys
                85   90   95

Arg Pro Arg Ser Arg Cys Ser Cys Arg Val Met Glu Asn Pro Ser Pro
            100   105   110

Ala Ala Ala Leu Gly Lys Ala Leu Cys Ala Leu Leu Leu Ala Thr Leu
            115   120   125

Gly Ala Ala Gly Gln Pro Leu Gly Gly Glu Ser Ile Cys Ser Ala Arg
        130   135   140

Ala Pro Ala Lys Tyr Ser Ile Thr Phe Thr Gly Lys Trp Ser Gln Thr
145   150   155   160

Ala Phe Pro Lys Gln Tyr Pro Leu Phe Arg Pro Pro Ala Gln Trp Ser
                165   170   175

Ser Leu Leu Gly Ala Ala His Ser Ser Asp Tyr Ser Met Trp Arg Lys
                180   185   190

Asn Gln Tyr Val Ser Asn Gly Leu Arg Asp Phe Ala Glu Arg Gly Glu
                195   200   205

190

Ala Trp Ala Leu Met Lys Glu Ile Glu Ala Ala Gly Glu Ala Leu Gln
    210   215   220

Ser Val His Glu Val Phe Ser Ala Pro Ala Val Pro Ser Gly Thr Gly
225   230   235   240

Ser Phe Leu Gln Gln Gly Cys Pro Pro Ser Pro Gly Val Pro Thr Gly
                245   250   255

Phe Pro Gly Ala Ser Tyr Ser Ala Thr Met Trp Glu Phe His His His
            260   265   270

Arg Asp Leu Ser Gly Ser Ser Gly Ser Tyr Val Glu Thr Arg Asn Ser
    275   280   285

Ser Pro
    290

<210> 152
<211> 504
<212> PRT
<213> Homo sapien

<400> 152

Arg Cys Asp Ser Cys Thr Leu Phe Ala Val Glu Ser Ile Leu Gln Gly
1   5   10   15

His Ser Pro Glu Glu Arg Met Lys Gly Gly Ser Arg Gln Tyr Leu Arg
            20   25   30

Asp Ser Val Leu Ser Asp Thr His Pro Gln Val Thr Cys Val Ser Gln
            35   40   45

Leu Thr Arg Lys Leu Ala Arg Met Ala Leu Cys Gly His Arg Val Thr
    50   55   60

Ala Met Leu Gln Gly Thr Cys Gly Gly Leu Gly Thr Gln Pro Pro His
65   70   75   80

Ser Ser Gly Leu Cys Ser Gln Ala Pro Trp Pro Gly Ala Gly Gln Val
                85   90   95

Leu Met Ser Ile Leu Leu Ala Leu Pro Gly Thr Cys Trp Thr Gly Gln
            100   105   110

Ala Gly Asn Ala Gly Ala Glu Trp Gln Phe Pro Pro Tyr Ser Ala Gly

```
          115                    120                         125

     Trp Gln Pro Léu Ala Ser Arg Ser Ala Cys Gly Leu Glu Arg Ile Ala
         130              135                 140

     Gly Ser Trp Val Arg Ala Cys Trp Leu Trp Val Ser Gly Ser His Leu
     145              150                 155                    160

     Ile Trp Val Trp Asp Ser Gln Cys Arg Pro Gln Thr Thr Ala Asp Phe
                     165                 170                 175

     Arg Leu Ser Arg Gly Gly Thr Gly Ala His Gln Pro Gly His Gly Pro
                 180              185                 190

     Arg Arg Pro Pro Pro Ser Met Leu Leu Ala Gly Val Glu Ala Gly Thr
                 195              200                 205

     Gly Pro Pro His Thr Cys Pro Pro Ser His Val Val Gly Thr Asp Val
         210              215                 220

     Val Leu Arg Ser Ser Ser Asn Tyr Lys Leu Thr Val Ser Arg Pro Trp
     225              230                 235                    240

     Lys Gln Gly Pro Gly Gln Val Arg Gln Glu Ala Ala Trp Leu Ala Gly
                 245                 250                    255

     Thr Thr Pro Gln Thr Glu Thr Val Pro Ser Pro Gly Ser Leu Leu Ile
                 260                 265                 270

     Trp Asp Glu Leu Gly Leu Pro Val Pro Ala Ser Val Leu Pro Leu Pro
                 275                 280                 285

     Ser Ala Gly Leu Gly Ser Ser Leu Ile Cys Pro Arg Gly Cys Pro Ile
         290                 295                 300

     Pro Ser Arg Cys Pro Arg Ala Thr Tyr Pro Thr Gly Arg Arg Ala Ser
     305                 310                 315                    320

     Thr Val Arg Gly Val Gln Leu Val Trp Arg Glu Glu Pro Leu Val Gly
                     325                 330                    335

     Arg Gly Ser Arg Glu Val Arg Phe Ala Pro His Leu Gly Ala Leu Gly
                 340                 345                 350

     His Ser Gly Gln Gly Ser Thr Trp Pro Val Pro Trp Ala Arg Arg Gly
                 355                 360                 365
```

```
Ile Lys Ser Ala Val Ala Lys Gln Lys Gln Tyr Cys Arg Gly Arg Val
    370             375             380

Gly Arg Asp Cys Ala Met Ser Ser Glu Gln Glu Ala Gly His Gly Glu
385                 390             395                 400

Lys Gly Gly Arg Arg Thr Glu Pro Ala Val Pro Ala Glu Gly Pro Glu
                 405             410                 415

Trp Ala Val Gly Thr Glu His Arg Pro Pro Thr Arg Val Ser Pro
             420             425             430

Val Thr Ser Gly Phe Pro Arg Ala Glu Ala Gly Met Gly Met Trp Arg
         435             440             445

Leu Ala Pro Arg Arg Leu Arg Gln Val His Ala Lys Pro Ala Trp Leu
    450             455             460

Ser Ser Gly Phe Leu Leu Thr Arg Trp Met Pro Val Pro Arg Pro Pro
465             470             475             480

Asp Arg Ala Leu Gln His Trp Arg Gly Leu Trp Trp Gly Pro Arg Cys
             485             490             495

Arg Thr Gly Thr Ala Ser Ala His
             500


<210>  153
<211>  292
<212>  PRT
<213>  Homo sapien

<400>  153

Met Asn Pro Ile Val Val Val His Gly Gly Gly Ala Gly Pro Ile Ser
1              5              10              15


Lys Asp Arg Lys Glu Arg Val His Gln Gly Met Val Arg Ala Ala Thr
         20              25              30


Val Gly Tyr Gly Ile Leu Arg Glu Gly Gly Ser Ala Val Asp Ala Val
         35              40              45


Glu Gly Ala Val Val Ala Leu Glu Asp Asp Pro Glu Phe Asn Ala Gly
    50              55              60
```

Cys Gly Ser Val Leu Asn Thr Asn Gly Glu Val Glu Met Asp Ala Ser
65   70   75   80

Ile Met Asp Gly Lys Asp Leu Ser Ala Gly Ala Val Ser Ala Val Gln
              85   90   95

Cys Ile Ala Asn Pro Ile Lys Leu Ala Arg Leu Val Met Glu Lys Thr
              100   105   110

Pro His Cys Phe Leu Thr Asp Gln Gly Ala Ala Gln Phe Ala Ala Ala
          115   120   125

Met Gly Val Pro Glu Ile Pro Gly Glu Lys Leu Val Thr Glu Arg Asn
    130   135   140

Lys Lys Arg Leu Glu Lys Glu Lys His Glu Lys Gly Ala Gln Lys Thr
145   150   155   160

Asp Cys Gln Lys Asn Leu Gly Thr Val Gly Ala Val Ala Leu Asp Cys
              165   170   175

Lys Gly Asn Val Ala Tyr Ala Thr Ser Thr Gly Gly Ile Val Asn Lys
              180   185   190

Met Val Gly Arg Val Gly Asp Ser Pro Cys Leu Gly Ala Gly Gly Tyr
    195   200   205

Ala Asp Asn Asp Ile Gly Ala Val Ser Thr Thr Gly His Gly Glu Ser
    210   215   220

Ile Leu Lys Val Asn Leu Ala Arg Leu Thr Pro Val Gln Cys Phe Glu
225   230   235   240

Ile Leu Pro Thr Ser Pro Ser Ser Pro Ala Gly Ser Gly Ala Val Gln
              245   250   255

Cys Gly Gln His Gly Glu Glu Ser His Phe Leu Gly Gly Gln Tyr Ser
          260   265   270

Ser Leu Ser Leu Ile Thr Leu Glu Met Leu Phe Leu Leu Tyr His Pro
    275   280   285

Cys Ser Thr Phe
    290

<210> 154

```
<211>   106
<212>   PRT
<213>   Homo sapien

<400>   154

Met Ile Thr Pro Leu His Ser Ser Leu Gly Asn Arg Ala Arg Pro Cys
1               5               10                  15


Ile Lys Lys Lys Arg Lys Gly Lys Lys Glu Arg Lys Gln Gln His Asp
                20              25                  30


Pro Asp Met Thr Asp Val Gly Asp Pro Gln Pro Ala Asp Thr Val Gly
        35              40                  45


Trp Lys Val Gly Arg Glu Gly Pro Val Glu Val Glu Leu Phe Glu Ser
    50                  55              60


Asp Thr Ala Ala Val Glu Ala Val Val Gly Glu Ala Gln Val Thr Leu
65              70              75                  80


Arg Thr Leu His Lys Asn Ile Arg Glu Lys Asn Gln Asn Pro Leu Arg
                85              90                  95


Lys Met Phe Phe Met Tyr Glu Arg Leu Lys
                100             105


<210>   155
<211>   186
<212>   PRT
<213>   Homo sapien

<400>   155

Val Gln His Gly Arg Arg Gly Leu Val Val Val Leu Arg Leu Pro Ile
1               5               10                  15


Ala Leu Pro Leu His Gly Asp Val Ala Gly Ile Glu Ala Phe Asp Gln
                20              25                  30


Ala Gly Gln Ala Asp Leu Val Leu Gly Gln Leu Ile Pro Gly Trp Gly
            35              40                  45


Gln Gly Val His Leu Trp Phe Ser Gly Leu Pro Phe Gly Phe Gly Asp
    50                  55              60


Gly Phe Leu Asp Gly Gly Trp Glu Gly Phe Val Gly Asp Leu Ala Leu
65                  70              75                  80
```

195

Val Leu Leu Ala Ile Gln Pro Val Leu Val Gln Asp Gly Glu Asp Ala
                85   90   95

Asp His Thr Val Arg Ala Val Val Leu Leu Leu Pro Arg Leu Cys Leu
              100   105   110

Gly Ile Met His Leu His Ala Val His Val Pro Val Glu Leu Asp Leu
          115   120   125

Arg Val Phe Val Ala His Val His His His Ala His Val His Cys Thr
    130   135   140

Leu Tyr Asp Asp Ala Pro Arg Pro Tyr Leu Ala Phe Leu Arg Tyr Asp
145   150   155   160

Tyr Arg Asp Leu Leu Pro Ser Leu Arg Ser Trp Pro Arg Arg Tyr Leu
              165   170   175

Cys Thr Glu Val Ser His His Pro Cys Arg
              180   185

<210> 156
<211> 119
<212> PRT
<213> Homo sapien

<400> 156

Met Ala Phe Glu Val Leu Asn Leu Arg Ser Arg Asn His Ala Phe Leu
1   5   10   15

Leu Ile Cys Arg Ala Ser Leu Glu Leu Pro Pro Pro Ala Val Lys Gly
          20   25   30

Ala Cys Arg Pro Gly Arg Leu Ser Pro Gly Ala Trp Leu Glu Val Ala
          35   40   45

Gly Ala Gly Thr Gly Arg Ala Leu Ala Gly Val Val Val Gly Ser Ser
    50   55   60

Ala Leu Leu Pro Trp Leu Pro Leu Leu Asn Pro Pro Leu Thr Phe Val
65   70   75   80

Gly Ser Cys Ser Val Arg Arg Glu Leu Gly Ala Leu Ala Pro Arg Leu
              85   90   95

Leu Ser Ser Gln Glu Asp Leu Pro His Arg His Gln Trp Leu Leu Leu
              100   105   110

```
Trp Pro Arg Glu Val Gly Leu
        115
```

<210> 157
<211> 199
<212> PRT
<213> Homo sapien

<400> 157

```
Gln Thr Ser Cys Val Ala Leu Lys Lys Gly Ser Ser Thr Phe Pro Asp
1               5               10              15

His Lys Val Lys Val Thr Pro Leu Gly Asn Pro Asp Arg Pro Ala Ala
            20              25              30

Gly Gln Thr Asp Arg Glu Arg Glu Ser Glu Gly Glu Gly Glu Val Ser
        35              40              45

Asn Ala Pro Gly Thr Pro Gly Ser Leu Ala His Ile Ser Ser Pro Ala
    50              55              60

Gln Ala Pro Ser Gly Lys Met Asn Pro Cys Ile Phe Leu Phe Ser Asn
65              70              75              80

Met Ala Phe Glu Val Leu Asn Leu Arg Ser Arg Asn His Ala Phe Leu
            85              90              95

Leu Ile Cys Arg Ala Ser Leu Glu Leu Pro Pro Pro Ala Val Lys Gly
            100             105             110

Ala Cys Arg Pro Gly Arg Leu Ser Pro Gly Ala Trp Leu Glu Val Ala
        115             120             125

Gly Ala Gly Thr Gly Arg Ala Leu Ala Gly Val Val Val Gly Ser Ser
    130             135             140

Ala Leu Leu Pro Trp Leu Pro Leu Leu Asn Pro Pro Leu Thr Phe Val
145             150             155             160

Gly Ser Cys Ser Val Arg Arg Glu Leu Gly Ala Leu Ala Pro Arg Leu
            165             170             175

Leu Ser Ser Gln Glu Asp Leu Pro His Arg His Gln Trp Leu Leu Leu
            180             185             190
```

Trp Pro Arg Glu Val Gly Leu
        195

<210> 158
<211> 234
<212> PRT
<213> Homo sapien

<400> 158

Met Gly Trp Tyr Trp Trp Leu Val Thr Asp Val Glu Gly Gly His Leu
1   5   10   15

Leu Leu Pro Gln Ser Thr Val Val Asp Val Gly Glu Ala Phe Phe Glu
        20   25   30

Leu Thr Gln Ser Asp Lys Ile Glu Lys Arg Ile Leu Lys Asn Glu Gln
        35   40   45

Ile Leu Leu Lys Lys Ser Cys Glu Phe Phe Leu Lys His Asn Ser Lys
    50   55   60

Val Lys His Lys Lys Lys His Tyr Lys Pro Ser Ser His Lys Leu Lys
65   70   75   80

Val Ile Ser Lys Ser Met Gly Thr Ser Thr Gly Ala Thr Ala Asn His
                85   90   95

Gly Thr Ser Ala Val Ala Ile Thr Ser His Asp Tyr Leu Gly Gln Glu
            100   105   110

Thr Leu Thr Glu Ile Gln Thr Ser Pro Glu Thr Ser Met Arg Glu Val
        115   120   125

Lys Ala Asp Gly Ala Ser Thr Pro Arg Leu Arg Glu Gln Asp Cys Gly
    130   135   140

Glu Pro Ala Ser Pro Ala Ala Ser Ile Ser Arg Leu Ser Gly Glu Gln
145   150   155   160

Val Asp Gly Lys Gly Gln Ala Gly Ser Val Ser Glu Ser Ala Arg Ser
            165   170   175

Glu Gly Arg Ile Ser Pro Lys Ser Asp Ile Thr Asp Thr Gly Leu Ala
            180   185   190

Gln Ser Asn Asn Leu Gln Val Pro Ser Ser Ser Glu Pro Ser Ser Leu
        195   200   205

Lys Gly Ser Thr Ser Leu Leu Val His Pro Val Ser Gly Val Arg Lys
    210   215   220

Glu Gln Gly Gly Gly Cys His Ser Asp Thr
225   230

<210> 159
<211> 201
<212> PRT
<213> Homo sapien

<400> 159

Pro Ser Gln Thr Lys Ile Glu Lys Arg Ile Leu Lys Asn Glu Gln Ile
1   5   10   15

Leu Leu Lys Lys Ser Cys Glu Phe Phe Leu Lys His Asn Ser Lys Val
        20   25   30

Lys His Lys Lys Lys His Tyr Lys Pro Ser Ser His Lys Leu Lys Val
        35   40   45

Ile Ser Lys Ser Met Gly Thr Ser Thr Gly Ala Thr Ala Asn His Gly
    50   55   60

Thr Ser Ala Val Ala Ile Thr Ser His Asp Tyr Leu Gly Gln Glu Thr
65   70   75   80

Leu Thr Glu Ile Gln Thr Ser Pro Glu Thr Ser Met Arg Glu Val Lys
            85   90   95

Ala Asp Gly Ala Ser Thr Pro Arg Leu Arg Glu Gln Asp Cys Gly Glu
        100   105   110

Pro Ala Ser Pro Ala Ala Ser Ile Ser Arg Leu Ser Gly Glu Gln Val
        115   120   125

Asp Gly Lys Gly Gln Ala Gly Ser Val Ser Glu Ser Ala Arg Ser Glu
    130   135   140

Gly Arg Ile Ser Pro Lys Ser Asp Ile Thr Asp Thr Gly Leu Ala Gln
145   150   155   160

Ser Asn Asn Leu Gln Val Pro Ser Ser Ser Glu Pro Ser Ser Leu Lys
            165   170   175

Gly Ser Thr Ser Leu Leu Val His Pro Val Ser Gly Val Arg Lys Glu
        180   185   190

Gln Gly Gly Gly Cys His Ser Asp Thr
        195   200

<210> 160
<211> 159
<212> PRT
<213> Homo sapien

<400> 160

Met Asp Pro Asp Ala Leu Leu Trp Gly Met Ser Cys His Gly Leu Gly
1   5   10   15

Arg Thr Glu Ser Asn Arg Thr Leu Leu Leu Pro Trp Pro His Leu Val
        20   25   30

Gln His Arg Arg Pro Lys Pro Gly Leu Ser Pro Leu Ser Pro Thr His
        35   40   45

Leu Ser Leu Pro Arg Lys Lys Lys Cys Asp Tyr Trp Ile Arg Thr Phe
        50   55   60

Val Pro Gly Cys Gln Pro Gly Glu Phe Thr Leu Gly Asn Ile Lys Ser
65   70   75   80

Tyr Pro Gly Leu Thr Ser Tyr Leu Val Arg Val Val Ser Thr Asn Tyr
                85   90   95

Asn Gln His Ala Met Val Phe Phe Lys Lys Val Ser Gln Asn Arg Glu
            100   105   110

Tyr Phe Lys Ile Thr Leu Tyr Gly Arg Thr Lys Glu Leu Thr Ser Glu
        115   120   125

Leu Lys Glu Asn Phe Ile Arg Phe Ser Lys Ser Leu Gly Leu Pro Glu
        130   135   140

Asn His Ile Val Phe Pro Val Pro Ile Asp Gln Cys Ile Asp Gly
145   150   155

<210> 161
<211> 158
<212> PRT
<213> Homo sapien

<400> 161

```
Gly Ser Arg Arg Ser Leu Trp Gly Met Ser Cys His Gly Leu Gly Arg
1               5               10              15


Thr Glu Ser Asn Arg Thr Leu Leu Leu Pro Trp Pro His Leu Val Gln
            20              25              30


His Arg Arg Pro Lys Pro Gly Leu Ser Pro Leu Ser Pro Thr His Leu
        35              40              45


Ser Leu Pro Arg Lys Lys Lys Cys Asp Tyr Trp Ile Arg Thr Phe Val
    50              55              60


Pro Gly Cys Gln Pro Gly Glu Phe Thr Leu Gly Asn Ile Lys Ser Tyr
65              70              75              80


Pro Gly Leu Thr Ser Tyr Leu Val Arg Val Val Ser Thr Asn Tyr Asn
            85              90              95


Gln His Ala Met Val Phe Phe Lys Lys Val Ser Gln Asn Arg Glu Tyr
            100             105             110


Phe Lys Ile Thr Leu Tyr Gly Arg Thr Lys Glu Leu Thr Ser Glu Leu
        115             120             125


Lys Glu Asn Phe Ile Arg Phe Ser Lys Ser Leu Gly Leu Pro Glu Asn
    130             135             140


His Ile Val Phe Pro Val Pro Ile Asp Gln Cys Ile Asp Gly
145             150             155


<210>   162
<211>   229
<212>   PRT
<213>   Homo sapien

<400>   162

Met Trp Pro Pro Gly Arg Ser Ile Thr Val Lys Leu Arg Glu Lys Thr
1               5               10              15


Val Ser Arg Lys Leu Glu Met Asn Gly Pro Ser Ala Phe Gln Gly Leu
            20              25              30


Ile Cys Gly Lys Tyr Asn Gly Met Cys Leu Gln Gly Pro Ala Gly Val
        35              40              45


Pro Gly Arg Asp Gly Ser Pro Gly Ala Asn Gly Ile Pro Gly Thr Pro
```

```
           50                    55                    60

Gly Ile Pro Gly Arg Asp Gly Phe Lys Gly Glu Lys Gly Glu Cys Leu
 65               70                    75                    80


Arg Glu Ser Phe Glu Glu Ser Trp Thr Pro Asn Tyr Lys Gln Cys Ser
                 85                     90                    95


Trp Ser Ser Leu Asn Tyr Gly Ile Asp Leu Gly Lys Ile Ala Glu Cys
                100                    105                   110


Thr Phe Thr Lys Met Arg Ser Asn Ser Ala Leu Arg Val Leu Phe Ser
            115                    120                    125


Gly Ser Leu Arg Leu Lys Cys Arg Asn Ala Cys Cys Gln Arg Trp Tyr
    130                    135                    140


Phe Thr Phe Asn Gly Ala Glu Cys Ser Gly Pro Leu Pro Ile Glu Ala
145                    150                    155                   160


Ile Ile Tyr Leu Asp Gln Gly Ser Pro Glu Met Asn Ser Thr Ile Asn
                165                    170                    175


Ile His Arg Thr Ser Ser Val Glu Gly Leu Cys Glu Gly Ile Gly Ala
                180                    185                    190


Gly Leu Val Asp Val Ala Ile Trp Val Gly Thr Cys Ser Asp Tyr Pro
            195                    200                    205


Lys Gly Asp Ala Ser Thr Gly Trp Asn Ser Val Ser Arg Ile Ile Ile
    210                    215                    220


Glu Glu Leu Pro Lys
225
```

```
<210>   163
<211>   214
<212>   PRT
<213>   Homo sapien

<400>   163
```

```
Met Val Gly Arg Arg Ala Leu Ile Val Leu Ala His Ser Glu Arg Thr
1               5                     10                    15


Ser Phe Asn Tyr Ala Met Lys Glu Ala Ala Ala Ala Leu Lys Lys
                20                    25                    30
```

Lys Gly Trp Glu Val Val Glu Ser Asp Leu Tyr Ala Met Asn Phe Asn
        35   40   45

Pro Ile Ile Ser Arg Lys Asp Ile Thr Gly Lys Leu Lys Asp Pro Ala
        50   55   60

Asn Phe Gln Tyr Pro Ala Glu Ser Val Leu Ala Tyr Lys Glu Gly His
    65   70   75   80

Leu Ser Pro Asp Ile Val Ala Glu Leu Gly Val Pro Ala Ile Leu Lys
                    85   90   95

Gly Trp Phe Glu Arg Val Phe Ile Gly Glu Phe Ala Tyr Thr Tyr Ala
                100   105   110

Ala Met Tyr Asp Lys Gly Pro Phe Arg Ser Lys Lys Ala Val Leu Ser
            115   120   125

Ile Thr Thr Gly Gly Ser Gly Ser Met Tyr Ser Leu Gln Gly Ile His
    130   135   140

Arg Asp Met Asn Val Ile Leu Trp Pro Ile Gln Ser Gly Ile Leu His
145   150   155   160

Phe Trp Gly Phe Gln Val Leu Glu Pro Ser Leu Thr Tyr Ser Ile Gly
                165   170   175

Thr Leu Gln Gln Thr Pro Glu Leu Asn Pro Val Arg Met Gly Glu Thr
            180   185   190

Pro Asp Asp Ile Cys Met Arg His His Asp Phe Ala Pro Arg Ala Leu
        195   200   205

Cys Leu Asn Phe Ser Lys
        210

<210>   164
<211>   172
<212>   PRT
<213>   Homo sapien

<220>
<221>   MISC_FEATURE
<222>   (112)..(112)
<223>   x=any amino acid

<220>

```
<221>  MISC_FEATURE
<222>  (144)..(144)
<223>  x=any amino acid
```

```
<400>  164
```

```
Leu Pro Pro Val Ala Pro Ala Gly Glu Ser Gly Glu Ala Pro Pro Ser
1                5                10                15


Ser Pro Arg Leu Pro Pro Phe Leu Glu Leu Gln Pro Gln His Pro Pro
            20              25                30


Pro Arg His Pro Tyr Ala Tyr Ser Gly Arg Cys Gly Pro Ala Leu Val
        35                40                45


Arg Leu Ser Thr Ser Tyr Ile Gly Ala Trp Thr Gly Tyr Ile Ser Arg
    50                55                60


Glu Cys His Pro Trp His Tyr Thr Arg Asp Ser His Lys Val Ala Ala
65                70                75                80


Gly Ala Ala Gln Leu Thr Glu Ser Leu Val Pro Ala Arg Asp Arg Pro
            85                90                95


Gly Asn His Glu Pro Ser Gln Leu Ser Ala Pro Arg Leu Leu Pro Xaa
            100               105               110


Thr Met Val Gly Arg Arg Ala Leu Ile Val Leu Ala His Ser Glu Arg
        115               120               125


Thr Ser Phe Asn Tyr Ala Met Lys Glu Ala Ala Ala Ala Ala Leu Xaa
    130               135               140


Lys Lys Gly Trp Glu Val Val Glu Ser Asp Leu Tyr Ala Met Asn Phe
145               150               155               160


Asn Pro Ile Ile Ser Arg Lys Asp Ile Thr Gly Asn
                165               170
```

```
<210>  165
<211>  440
<212>  PRT
<213>  Homo sapien
```

```
<400>  165
```

```
Met Ala Leu Leu Val Leu Gly Leu Val Ser Cys Thr Phe Phe Leu Ala
1                5                10                15
```

Val Asn Gly Leu Tyr Ser Ser Ser Asp Asp Val Ile Glu Leu Thr Pro
         20   25   30

Ser Asn Phe Asn Arg Glu Val Ile Gln Ser Asp Ser Leu Trp Leu Val
         35   40   45

Glu Phe Tyr Ala Pro Trp Cys Gly His Cys Gln Arg Leu Thr Pro Glu
      50   55   60

Trp Lys Lys Ala Ala Thr Ala Leu Lys Asp Val Val Lys Val Gly Ala
65   70   75   80

Val Asp Ala Asp Lys His His Ser Leu Gly Gly Gln Tyr Gly Val Gln
               85   90   95

Gly Phe Pro Thr Ile Lys Ile Phe Gly Ser Asn Lys Asn Arg Pro Glu
            100   105   110

Asp Tyr Gln Gly Gly Arg Thr Gly Glu Ala Ile Val Asp Ala Ala Leu
         115   120   125

Ser Ala Leu Arg Gln Leu Val Lys Asp Arg Leu Gly Gly Arg Ser Gly
      130   135   140

Gly Tyr Ser Ser Gly Lys Gln Gly Arg Ser Asp Ser Ser Ser Lys Lys
145   150   155   160

Asp Val Ile Glu Leu Thr Asp Asp Ser Phe Asp Lys Asn Val Leu Asp
               165   170   175

Ser Glu Asp Val Trp Met Val Glu Phe Tyr Ala Pro Trp Cys Gly His
            180   185   190

Cys Lys Asn Leu Glu Pro Glu Trp Ala Ala Ala Ala Ser Glu Val Lys
         195   200   205

Glu Gln Thr Lys Gly Lys Val Lys Leu Ala Ala Val Asp Ala Thr Val
      210   215   220

Asn Gln Val Leu Ala Ser Arg Tyr Gly Ile Arg Gly Phe Pro Thr Ile
225   230   235   240

Lys Ile Phe Gln Lys Gly Glu Ser Pro Val Asp Tyr Asp Gly Gly Arg
            245   250   255

Thr Arg Ser Asp Ile Val Ser Arg Ala Leu Asp Leu Phe Ser Asp Asn
        260   265   270

Ala Pro Pro Pro Glu Leu Leu Glu Ile Ile Asn Glu Asp Ile Ala Lys
        275   280   285

Arg Thr Cys Glu Glu His Gln Leu Cys Val Val Ala Val Leu Pro His
290   295   300

Ile Leu Asp Thr Gly Ala Ala Gly Arg Asn Ser Tyr Leu Glu Val Leu
305   310   315   320

Leu Lys Leu Ala Asp Lys Tyr Lys Lys Lys Met Trp Gly Trp Leu Trp
            325   330   335

Thr Glu Ala Gly Ala Gln Ser Glu Leu Glu Thr Ala Leu Gly Ile Gly
            340   345   350

Gly Phe Gly Tyr Pro Ala Met Ala Ala Ile Asn Ala Arg Lys Met Lys
            355   360   365

Phe Ala Leu Leu Lys Gly Ser Phe Ser Glu Gln Gly Ile Asn Glu Phe
        370   375   380

Leu Arg Glu Leu Ser Phe Gly Arg Gly Ser Thr Ala Pro Val Gly Gly
385   390   395   400

Gly Ala Phe Pro Thr Ile Val Glu Arg Glu Pro Trp Asp Gly Arg Asp
            405   410   415

Gly Glu Leu Pro Val Glu Asp Asp Ile Asp Leu Ser Asp Val Glu Leu
            420   425   430

Asp Asp Leu Gly Lys Asp Glu Leu
        435   440

<210> 166
<211> 461
<212> PRT
<213> Homo sapien

<400> 166

Leu Ala Pro Gly Phe Tyr Cys Ala Ser Arg Phe Tyr Thr Gly Cys Ser
1   5   10   15

Thr Pro Gly Ser Ala Trp Leu Ser Trp Val Leu Gly Leu Val Ser Cys
            20   25   30

```
Thr Phe Phe Leu Ala Val Asn Gly Leu Tyr Ser Ser Ser Asp Asp Val
        35                  40              45

Ile Glu Leu Thr Pro Ser Asn Phe Asn Arg Glu Val Ile Gln Ser Asp
    50                  55              60

Ser Leu Trp Leu Val Glu Phe Tyr Ala Pro Trp Cys Gly His Cys Gln
65                  70              75                  80

Arg Leu Thr Pro Glu Trp Lys Lys Ala Ala Thr Ala Leu Lys Asp Val
                85              90              95

Val Lys Val Gly Ala Val Asp Ala Asp Lys His His Ser Leu Gly Gly
            100             105             110

Gln Tyr Gly Val Gln Gly Phe Pro Thr Ile Lys Ile Phe Gly Ser Asn
        115             120             125

Lys Asn Arg Pro Glu Asp Tyr Gln Gly Gly Arg Thr Gly Glu Ala Ile
    130             135             140

Val Asp Ala Ala Leu Ser Ala Leu Arg Gln Leu Val Lys Asp Arg Leu
145             150             155             160

Gly Gly Arg Ser Gly Gly Tyr Ser Ser Gly Lys Gln Gly Arg Ser Asp
            165             170             175

Ser Ser Ser Lys Lys Asp Val Ile Glu Leu Thr Asp Asp Ser Phe Asp
            180             185             190

Lys Asn Val Leu Asp Ser Glu Asp Val Trp Met Val Glu Phe Tyr Ala
        195             200             205

Pro Trp Cys Gly His Cys Lys Asn Leu Glu Pro Glu Trp Ala Ala Ala
    210             215             220

Ala Ser Glu Val Lys Glu Gln Thr Lys Gly Lys Val Lys Leu Ala Ala
225             230             235             240

Val Asp Ala Thr Val Asn Gln Val Leu Ala Ser Arg Tyr Gly Ile Arg
            245             250             255

Gly Phe Pro Thr Ile Lys Ile Phe Gln Lys Gly Glu Ser Pro Val Asp
            260             265             270
```

Tyr Asp Gly Gly Arg Thr Arg Ser Asp Ile Val Ser Arg Ala Leu Asp
        275   280   285

Leu Phe Ser Asp Asn Ala Pro Pro Glu Leu Leu Glu Ile Ile Asn
    290   295   300

Glu Asp Ile Ala Lys Arg Thr Cys Glu Glu His Gln Leu Cys Val Val
305   310   315   320

Ala Val Leu Pro His Ile Leu Asp Thr Gly Ala Ala Gly Arg Asn Ser
            325   330   335

Tyr Leu Glu Val Leu Leu Lys Leu Ala Asp Lys Tyr Lys Lys Lys Met
        340   345   350

Trp Gly Trp Leu Trp Thr Glu Ala Gly Ala Gln Ser Glu Leu Glu Thr
        355   360   365

Ala Leu Gly Ile Gly Gly Phe Gly Tyr Pro Ala Met Ala Ala Ile Asn
    370   375   380

Ala Arg Lys Met Lys Phe Ala Leu Leu Lys Gly Ser Phe Ser Glu Gln
385   390   395   400

Gly Ile Asn Glu Phe Leu Arg Glu Leu Ser Phe Gly Arg Gly Ser Thr
            405   410   415

Ala Pro Val Gly Gly Gly Ala Phe Pro Thr Ile Val Glu Arg Glu Pro
            420   425   430

Trp Asp Gly Arg Asp Gly Glu Leu Pro Val Glu Asp Asp Ile Asp Leu
        435   440   445

Ser Asp Val Glu Leu Asp Asp Leu Gly Lys Asp Glu Leu
    450   455   460

<210> 167
<211> 97
<212> PRT
<213> Homo sapien

<400> 167

Glu Gly Cys Ile Lys Ile Leu Ser Phe His Ile Gly Val Ser Phe Glu
1   5   10   15

Asp Val Ala Val Pro Leu Ser Gln Glu Glu Trp Asp Cys Leu Ile Pro

```
                 20                    25                    30

Ala Gln Arg Gly Leu Tyr Lys Asp Val Met Met Gly Thr Tyr Gly Asn
            35                  40                  45


Leu Leu Ser Leu Val Gly Glu Trp Leu Ser Lys Leu Trp Tyr Ile His
        50                  55                  60


Thr Met Gly Tyr Asp Ser Thr Ile Lys Arg Asn Cys Pro Asp Phe Thr
65                  70                  75                  80


Thr Met Gln Tyr Met His Val Arg Asn Leu His Leu Tyr Pro Leu Asn
                85                  90                  95


Ile
```

```
<210>   168
<211>   81
<212>   PRT
<213>   Homo sapien

<400>   168

Ala Ala Ala Pro Thr Ser Glu Trp Cys Ser Thr Tyr Glu Val Arg Leu
1               5                   10                  15


Thr Gln Thr Val Ala His Leu Lys Gln Gln Val Ser Gly Leu Glu Gly
            20                  25                  30


Val Gln Asp Asp Leu Phe Trp Leu Thr Phe Glu Gly Lys Pro Leu Glu
        35                  40                  45


Asp Gln Leu Pro Leu Gly Glu Tyr Gly Leu Lys Pro Leu Ser Thr Val
    50                  55                  60


Phe Met Asn Leu Arg Leu Arg Gly Gly Gly Thr Glu Pro Gly Gly Arg
65                  70                  75                  80


Ser
```

```
<210>   169
<211>   102
<212>   PRT
<213>   Homo sapien

<400>   169
```

Gly Arg Ser Asn Ile Arg Met Val Gln His Leu Arg Gly Ala Ala Asp
1   5   10   15

Ala Asp Arg Gly Pro Pro Glu Ala Ala Ser Glu Arg Ala Gly Gly Cys
            20   25   30

Ala Gly Arg Pro Val Leu Ala Asp Leu Arg Gly Glu Ala Pro Gly Gly
        35   40   45

Pro Ala Pro Ala Gly Gly Val Arg Pro Gln Ala Pro Glu His Arg Val
    50   55   60

His Glu Ser Ala Pro Ala Gly Arg Arg His Arg Ala Trp Arg Ala Glu
65   70   75   80

Leu Arg Ala Ser Thr Ser Ile Arg Ala Gly Ser Arg Ala Gly Asn Lys
            85   90   95

Gly Cys Cys Lys Glu Lys
            100

<210>   170
<211>   709
<212>   PRT
<213>   Homo sapien

<400>   170

Met Glu Lys Lys Lys Ile Val Leu Glu Gln Glu Val Lys Thr Leu Asn
1   5   10   15

Asp Ser Leu Lys Lys Val Glu Asn Lys Val Ser Ala Ile Val Asp Glu
            20   25   30

Lys Glu Asn Val Ile Lys Glu Val Glu Gly Lys Arg Ala Leu Leu Glu
            35   40   45

Ile Lys Glu Arg Glu His Asn Gln Leu Val Lys Leu Leu Glu Leu Ala
    50   55   60

Arg Glu Asn Glu Ala Thr Ser Leu Thr Glu Arg Gly Ile Leu Asp Leu
65   70   75   80

Asn Leu Arg Asn Ser Leu Ile Asp Lys Gln Asn Tyr His Asp Glu Leu
            85   90   95

Ser Arg Lys Gln Arg Glu Lys Glu Arg Asp Phe Arg Asn Leu Arg Lys
            100   105   110

```
Met Glu Leu Leu Leu Lys Val Ser Trp Asp Ala Leu Arg Gln Thr Gln
    115             120             125

Ala Leu His Gln Arg Leu Leu Leu Glu Met Glu Ala Ile Pro Lys Asp
    130             135             140

Asp Ser Thr Leu Ser Glu Arg Arg Arg Glu Leu His Lys Glu Val Glu
145             150             155             160

Val Ala Lys Arg Asn Leu Ala Gln Gln Lys Ile Ile Ser Glu Met Glu
            165             170             175

Ser Lys Leu Val Glu Gln Gln Leu Ala Glu Glu Asn Lys Leu Leu Lys
            180             185             190

Glu Gln Glu Asn Met Lys Glu Leu Val Val Asn Leu Leu Arg Met Thr
    195             200             205

Gln Ile Lys Ile Asp Glu Lys Glu Gln Lys Ser Lys Asp Phe Leu Lys
    210             215             220

Ala Gln Gln Lys Tyr Thr Asn Ile Val Lys Glu Met Lys Ala Lys Asp
225             230             235             240

Leu Glu Ile Arg Ile His Lys Lys Lys Cys Glu Ile Tyr Arg Arg
            245             250             255

Leu Arg Glu Phe Ala Lys Leu Tyr Asp Thr Ile Arg Asn Glu Arg Asn
            260             265             270

Lys Phe Val Asn Leu Leu His Lys Ala His Gln Lys Val Asn Glu Ile
    275             280             285

Lys Glu Arg His Lys Met Ser Leu Asn Glu Leu Glu Ile Leu Arg Asn
    290             295             300

Ser Ala Val Ser Gln Glu Arg Lys Leu Gln Asn Ser Met Leu Lys His
305             310             315             320

Ala Asn Asn Val Thr Ile Arg Glu Ser Met Gln Asn Asp Val Arg Lys
            325             330             335

Ile Val Ser Lys Leu Gln Glu Met Lys Glu Lys Lys Glu Ala Gln Leu
            340             345             350
```

```
Asn Asn Ile Asp Arg Leu Ala Asn Thr Ile Thr Met Ile Glu Glu Glu
        355             360             365

Met Val Gln Leu Arg Lys Arg Tyr Glu Lys Ala Val Gln His Glu Met
    370             375             380

Lys Ala Ser Ala Ser Glu Phe Asp His Ser Gly Val Gln Leu Ile Glu
385             390             395             400

Arg Glu Glu Glu Ile Cys Ile Phe Tyr Glu Lys Ile Asn Ile Gln Glu
                405             410             415

Lys Met Lys Leu Asn Gly Glu Ile Glu Ile His Leu Leu Glu Glu Lys
        420             425             430

Ile Gln Phe Leu Lys Met Lys Ile Ala Glu Lys Gln Arg Gln Ile Cys
        435             440             445

Val Thr Gln Lys Leu Leu Pro Ala Lys Arg Ser Leu Asp Ala Asp Leu
450             455             460

Ala Val Leu Gln Ile Gln Phe Ser Gln Cys Thr Asp Arg Ile Lys Asp
465             470             475             480

Leu Glu Lys Gln Phe Val Lys Pro Asp Gly Glu Asn Arg Ala Arg Phe
            485             490             495

Leu Pro Gly Lys Asp Leu Thr Glu Lys Glu Met Ile Gln Lys Leu Asp
        500             505             510

Lys Leu Glu Leu Gln Leu Ala Lys Lys Glu Glu Lys Leu Leu Glu Lys
        515             520             525

Asp Phe Ile Tyr Glu Gln Val Ser Arg Leu Thr Asp Arg Leu Cys Ser
    530             535             540

Lys Thr Gln Gly Cys Lys Gln Asp Thr Leu Leu Leu Ala Lys Lys Met
545             550             555             560

Asn Gly Tyr Gln Arg Arg Ile Lys Asn Ala Thr Glu Lys Met Met Ala
            565             570             575

Leu Val Ala Glu Leu Ser Met Lys Gln Ala Leu Thr Ile Glu Leu Gln
        580             585             590
```

212

```
Lys Glu Val Arg Glu Lys Glu Asp Phe Ile Phe Thr Cys Asn Ser Arg
        595             600             605

Ile Glu Lys Gly Leu Pro Leu Asn Lys Glu Ile Glu Lys Glu Trp Leu
        610             615             620

Lys Val Leu Arg Asp Glu Glu Met His Ala Leu Ala Ile Ala Glu Lys
625             630             635             640

Ser Gln Glu Phe Leu Glu Ala Asp Asn Arg Gln Leu Pro Asn Gly Val
            645             650             655

Tyr Thr Thr Ala Glu Gln Arg Pro Asn Ala Tyr Ile Pro Glu Ala Asp
            660             665             670

Ala Thr Leu Pro Leu Pro Lys Pro Tyr Gly Ala Leu Ala Pro Phe Lys
            675             680             685

Pro Ser Glu Pro Gly Ala Asn Met Arg His Ile Arg Lys Pro Val Ile
690             695             700

Lys Pro Val Glu Ile
705


<210>    171
<211>    413
<212>    PRT
<213>    Homo sapien

<400>    171

Ser Gln His Gly Leu Lys Ile Arg Gln Val Cys Val Cys Val Cys Val
1               5               10              15

Cys Val Cys Ile Pro Tyr Arg Glu Met Glu Lys Lys Lys Ile Val Leu
            20              25              30

Glu Gln Glu Val Lys Thr Leu Asn Asp Ser Leu Lys Lys Val Glu Asn
        35              40              45

Lys Val Ser Ala Ile Val Asp Glu Lys Glu Asn Val Ile Lys Glu Val
        50              55              60

Glu Gly Lys Arg Ala Leu Leu Glu Ile Lys Glu Arg Glu His Asn Gln
65              70              75              80

Leu Val Lys Leu Leu Glu Leu Ala Arg Glu Asn Glu Ala Thr Ser Leu
            85              90              95
```

Thr Glu Arg Gly Ile Leu Asp Leu Asn Leu Arg Asn Ser Leu Ile Asp
          100   105   110

Lys Gln Asn Tyr His Asp Glu Leu Ser Arg Lys Gln Arg Glu Lys Glu
          115   120   125

Arg Asp Phe Arg Asn Leu Arg Lys Met Glu Leu Leu Leu Lys Val Ser
    130   135   140

Trp Asp Ala Leu Arg Gln Thr Gln Ala Leu His Gln Arg Leu Leu Leu
145   150   155   160

Glu Met Glu Ala Ile Pro Lys Asp Asp Ser Thr Leu Ser Glu Arg Arg
                165   170   175

Arg Glu Leu His Lys Glu Val Glu Val Ala Lys Arg Asn Leu Ala Gln
          180   185   190

Gln Lys Ile Ile Ser Glu Met Glu Ser Lys Leu Val Glu Gln Gln Leu
          195   200   205

Ala Glu Glu Asn Lys Leu Leu Lys Glu Gln Glu Asn Met Lys Glu Leu
    210   215   220

Val Val Asn Leu Leu Arg Met Thr Gln Ile Lys Ile Asp Glu Lys Glu
225   230   235   240

Gln Lys Ser Lys Asp Phe Leu Lys Ala Gln Gln Lys Tyr Thr Asn Ile
                245   250   255

Val Lys Glu Met Lys Ala Lys Asp Leu Glu Ile Arg Ile His Lys Lys
                260   265   270

Lys Lys Cys Glu Ile Tyr Arg Arg Leu Arg Glu Phe Ala Lys Leu Tyr
          275   280   285

Asp Thr Ile Arg Asn Glu Arg Asn Lys Phe Val Asn Leu Leu His Lys
    290   295   300

Ala His Gln Lys Val Asn Glu Ile Lys Glu Arg His Lys Met Ser Leu
305   310   315   320

Asn Glu Leu Glu Ile Leu Arg Asn Ser Ala Val Ser Gln Glu Arg Lys
                325   330   335

Leu Gln Asn Ser Met Leu Lys His Ala Asn Asn Val Thr Ile Arg Glu
        340   345   350

Ser Met Gln Asn Asp Val Arg Lys Ile Val Ser Lys Leu Gln Glu Met
        355   360   365

Lys Glu Lys Lys Glu Ala Gln Leu Asn Asn Ile Asp Arg Leu Ala Asn
    370   375   380

Thr Ile Thr Met Ile Glu Glu Glu Met Val Gln Leu Arg Lys Arg Tyr
385   390   395   400

Glu Lys Ala Val Gln His Arg Asn Glu Ser Leu Cys Leu
            405   410

<210>   172
<211>   128
<212>   PRT
<213>   Homo sapien

<400>   172

Met Ala Met Gly Leu Met His Ala Arg Ala Ala Gln Cys Asp Gly Cys
1   5   10   15

Arg Gly Glu Ala Ala Pro Gly Arg Ser Asp Val Met Val Ser Ser Ser
        20   25   30

Leu Asn Pro Gly Val Ala Arg Gly His Arg Asp Arg Gly Gln Ala Ser
        35   40   45

Arg Arg Trp Leu Gln Glu Gly Gly Gln Glu Cys Glu Cys Lys Asp Trp
    50   55   60

Phe Leu Arg Ala Pro Arg Arg Lys Phe Met Thr Val Ser Gly Leu Pro
65   70   75   80

Lys Lys Gln Cys Pro Cys Asp His Phe Lys Gly Asn Val Lys Lys Thr
            85   90   95

Arg His Gln Arg His His Arg Lys Pro Asn Lys His Ser Arg Ala Cys
            100   105   110

Gln Gln Phe Leu Lys Gln Cys Gln Leu Arg Ser Phe Ala Leu Pro Leu
        115   120   125

<210>   173

<211> 94
<212> PRT
<213> Homo sapien

<400> 173

Ile Arg Val Ala Arg Gly His Arg Asp Arg Gly Gln Ala Ser Arg Arg
1   5   10   15

Trp Leu Gln Glu Gly Gly Gln Glu Cys Glu Cys Lys Asp Trp Phe Leu
            20   25   30

Arg Ala Pro Arg Arg Lys Phe Met Thr Val Ser Gly Leu Pro Lys Lys
        35   40   45

Gln Cys Pro Cys Asp His Phe Lys Gly Asn Val Lys Lys Thr Arg His
    50   55   60

Gln Arg His His Arg Lys Pro Asn Lys His Ser Arg Ala Cys Gln Gln
65   70   75   80

Phe Leu Lys Gln Cys Gln Leu Arg Ser Phe Ala Leu Pro Leu
                85   90

<210> 174
<211> 118
<212> PRT
<213> Homo sapien

<400> 174

Met Ala Met Gly Leu Met His Ala Arg Ala Ala Gln Cys Asp Gly Cys
1   5   10   15

Arg Gly Glu Ala Ala Pro Gly Arg Ser Gly Val Ala Arg Gly His Arg
            20   25   30

Asp Arg Gly Gln Ala Ser Arg Arg Trp Leu Gln Glu Gly Gly Gln Glu
        35   40   45

Cys Glu Cys Lys Asp Trp Phe Leu Arg Ala Pro Arg Arg Lys Phe Met
    50   55   60

Thr Val Ser Gly Leu Pro Lys Lys Gln Cys Pro Cys Asp His Phe Lys
65   70   75   80

Gly Asn Val Lys Lys Thr Arg His Gln Arg His His Arg Lys Pro Asn
                85   90   95

216

Lys His Ser Arg Ala Cys Gln Gln Phe Leu Lys Gln Cys Gln Leu Arg
                100   105   110

Ser Phe Ala Leu Pro Leu
        115

<210> 175
<211> 100
<212> PRT
<213> Homo sapien

<400> 175

Trp Met Arg Arg Arg Ala Gly Arg Val Ala Arg Gly His Arg Asp Arg
1   5   10   15

Gly Gln Ala Ser Arg Arg Trp Leu Gln Glu Gly Gly Gln Glu Cys Glu
            20   25   30

Cys Lys Asp Trp Phe Leu Arg Ala Pro Arg Arg Lys Phe Met Thr Val
        35   40   45

Ser Gly Leu Pro Lys Lys Gln Cys Pro Cys Asp His Phe Lys Gly Asn
    50   55   60

Val Lys Lys Thr Arg His Gln Arg His His Arg Lys Pro Asn Lys His
65   70   75   80

Ser Arg Ala Cys Gln Gln Phe Leu Lys Gln Cys Gln Leu Arg Ser Phe
            85   90   95

Ala Leu Pro Leu
        100

<210> 176
<211> 30
<212> PRT
<213> Homo sapien

<400> 176

Asn Ala Cys Arg Ala Ala Gln Cys Asp Gly Ser Ala Ala Arg Ala Gly
1   5   10   15

Leu Gln Glu Gly Gly Lys Asn Val Ser Ala Lys Ile Gly Ser
            20   25   30

<210> 177
<211> 84
<212> PRT

<213> Homo sapien

<400> 177

Trp Ile Gly Arg Pro Gly Arg Ser Pro Gly Arg Arg Gln Glu Cys Glu
1   5   10   15

Cys Lys Asp Trp Phe Leu Arg Ala Pro Arg Arg Lys Phe Met Thr Val
            20   25   30

Ser Gly Leu Pro Lys Lys Gln Cys Pro Cys Asp His Phe Lys Gly Asn
        35   40   45

Val Lys Lys Thr Arg His Gln Arg His His Arg Lys Pro Asn Lys His
    50   55   60

Ser Arg Ala Cys Gln Gln Phe Leu Lys Gln Cys Gln Leu Arg Ser Phe
65   70   75   80

Ala Leu Pro Leu

<210> 178
<211> 145
<212> PRT
<213> Homo sapien

<400> 178

Met Gln Glu Arg Thr Gly Ala Ala Thr Ala Arg Arg Glu Ser Leu Pro
1   5   10   15

Gln Ala Asn Asn Pro Glu Gln Leu Cys Lys Gln Arg Cys Ile Asn Glu
            20   25   30

Ala Ser Trp Thr Met Lys Arg Val Leu Ser Cys Val Pro Glu Pro Thr
        35   40   45

Val Val Met Ala Ala Arg Ala Leu Cys Met Leu Gly Leu Val Leu Ala
    50   55   60

Leu Leu Ser Ser Ser Ser Ala Glu Glu Tyr Val Gly Leu Ser Gln Gln
65   70   75   80

Gly Leu Trp Gln Leu Thr Gly Leu Cys Leu Gly Gln Pro Ala Asn Gln
            85   90   95

Cys Ala Val Pro Ala Lys Asp Arg Val Asp Cys Gly Tyr Pro His Val
            100   105   110

Thr Pro Lys Glu Cys Asn Asn Arg Gly Cys Cys Phe Asp Ser Arg Ile
        115   120   125

Pro Gly Val Pro Trp Cys Phe Lys Pro Leu Gln Glu Ala Glu Cys Thr
    130   135   140

Phe
145

<210>   179
<211>   91
<212>   PRT
<213>   Homo sapien

<400>   179

Met Gln Glu Arg Thr Gly Ala Ala Thr Ala Arg Arg Glu Ser Leu Pro
1   5   10   15

Gln Ala Asn Asn Pro Glu Gln Leu Cys Lys Gln Arg Cys Ile Asn Glu
            20   25   30

Ala Ser Trp Thr Met Lys Arg Val Leu Ser Cys Val Pro Glu Pro Thr
        35   40   45

Val Val Met Ala Ala Arg Ala Leu Cys Met Leu Gly Leu Val Leu Ala
    50   55   60

Leu Leu Ser Ser Ser Ser Ala Glu Glu Tyr Val Gly Leu Trp Lys Val
65   70   75   80

His Leu Pro Lys Gly Glu Gly Phe Ser Ser Gly
                85   90

<210>   180
<211>   1217
<212>   PRT
<213>   Homo sapien

<400>   180

Met Gly Leu Ser Phe Arg Leu His Ser Leu Leu Thr Thr Lys Gln His
1   5   10   15

Ala Gln Ser Arg Gly Glu Lys Glu Gly Glu Ser Cys Gly Pro His Glu
            20   25   30

His Leu Asp Leu Ala Trp Thr Thr His Ser Ser Leu Ala Leu Ala Leu

```
            35.                    40                     45

Phe Leu Leu Arg Val Trp Trp Trp Trp Asp Ser Lys Thr Val Lys Ile
    50                 55                60

Ala Phe Ser Pro Pro Trp Gly Ile Trp Gly Leu Phe Lys Arg Pro Ala
65                 70              75                80

Pro Leu Leu Glu Gly Arg Arg Ala Pro Arg Glu Ala Glu Gly Asp Arg
                85                 90                95

Arg Gly Lys Gly Pro Leu Ile Ile Ala His Pro Thr Glu Ile Leu Lys
             100              105              110

Gly Gly Val Leu Ile Gln Arg Asn Pro Gln Leu Cys Tyr Gln Asp Thr
         115              120              125

Ile Leu Trp Lys Asp Ile Phe His Lys Asn Asn Gln Leu Ala Leu Thr
    130              135              140

Leu Ile Asp Thr Asn Arg Ser Arg Ala Cys His Pro Cys Ser Pro Met
145              150              155              160

Cys Lys Gly Ser Arg Cys Trp Gly Glu Ser Ser Glu Asp Cys Gln Ser
             165              170              175

Leu Thr Arg Thr Val Cys Ala Gly Gly Cys Ala Arg Cys Lys Gly Pro
         180              185              190

Leu Pro Thr Asp Cys Cys His Glu Gln Cys Ala Ala Gly Cys Thr Gly
         195              200              205

Pro Lys His Ser Asp Cys Leu Ala Cys Leu His Phe Asn His Ser Gly
    210              215              220

Ile Cys Glu Leu His Cys Pro Ala Leu Val Thr Tyr Asn Thr Asp Thr
225              230              235              240

Phe Glu Ser Met Pro Asn Pro Glu Gly Arg Tyr Thr Phe Gly Ala Ser
             245              250              255

Cys Val Thr Ala Cys Pro Tyr Asn Tyr Leu Ser Thr Asp Val Gly Ser
         260              265              270

Cys Thr Leu Val Cys Pro Leu His Asn Gln Glu Val Thr Ala Glu Asp
    275              280              285
```

Gly Thr Gln Arg Cys Glu Lys Cys Ser Lys Pro Cys Ala Arg Val Cys
   290   295   300

Tyr Gly Leu Gly Met Glu His Leu Arg Glu Val Arg Ala Val Thr Ser
305   310   315   320

Ala Asn Ile Gln Glu Phe Ala Gly Cys Lys Lys Ile Phe Gly Ser Leu
          325   330   335

Ala Phe Leu Pro Glu Ser Phe Asp Gly Asp Pro Ala Ser Asn Thr Ala
      340   345   350

Pro Leu Gln Pro Glu Gln Leu Gln Val Phe Glu Thr Leu Glu Glu Ile
    355   360   365

Thr Gly Tyr Leu Tyr Ile Ser Ala Trp Pro Asp Ser Leu Pro Asp Leu
   370   375   380

Ser Val Phe Gln Asn Leu Gln Val Ile Arg Gly Arg Ile Leu His Asn
385   390   395   400

Gly Ala Tyr Ser Leu Thr Leu Gln Gly Leu Gly Ile Ser Trp Leu Gly
          405   410   415

Leu Arg Ser Leu Arg Glu Leu Gly Ser Gly Leu Ala Leu Ile His His
      420   425   430

Asn Thr His Leu Cys Phe Val His Thr Val Pro Trp Asp Gln Leu Phe
      435   440   445

Arg Asn Pro His Gln Ala Leu Leu His Thr Ala Asn Arg Pro Glu Asp
    450   455   460

Glu Cys Val Gly Glu Gly Leu Ala Cys His Gln Leu Cys Ala Arg Gly
465   470   475   480

His Cys Trp Gly Pro Gly Pro Thr Gln Cys Val Asn Cys Ser Gln Phe
          485   490   495

Leu Arg Gly Gln Glu Cys Val Glu Glu Cys Arg Val Leu Gln Gly Leu
          500   505   510

Pro Arg Glu Tyr Val Asn Ala Arg His Cys Leu Pro Cys His Pro Glu
      515   520   525

```
Cys Gln Pro Gln Asn Gly Ser Val Thr Cys Phe Gly Pro Glu Ala Asp
    530             535             540

Gln Cys Val Ala Cys Ala His Tyr Lys Asp Pro Pro Phe Cys Val Ala
545             550             555             560

Arg Cys Pro Ser Gly Val Lys Pro Asp Leu Ser Tyr Met Pro Ile Trp
            565             570             575

Lys Phe Pro Asp Glu Glu Gly Ala Cys Gln Pro Cys Pro Ile Asn Cys
            580             585             590

Thr His Ser Cys Val Asp Leu Asp Asp Lys Gly Cys Pro Ala Glu Gln
    595             600             605

Arg Ala Ser Pro Leu Thr Ser Ile Ile Ser Ala Val Val Gly Ile Leu
    610             615             620

Leu Val Val Val Leu Gly Val Val Phe Gly Ile Leu Ile Lys Arg Arg
625             630             635             640

Gln Gln Lys Ile Arg Lys Tyr Thr Met Arg Arg Leu Leu Gln Glu Thr
            645             650             655

Glu Leu Val Glu Pro Leu Thr Pro Ser Gly Ala Met Pro Asn Gln Ala
            660             665             670

Gln Met Arg Ile Leu Lys Glu Thr Glu Leu Arg Lys Val Lys Val Leu
    675             680             685

Gly Ser Gly Ala Phe Gly Thr Val Tyr Lys Gly Ile Trp Ile Pro Asp
    690             695             700

Gly Glu Asn Val Lys Ile Pro Val Ala Ile Lys Val Leu Arg Glu Asn
705             710             715             720

Thr Ser Pro Lys Ala Asn Lys Glu Ile Leu Asp Glu Ala Tyr Val Met
            725             730             735

Ala Gly Val Gly Ser Pro Tyr Val Ser Arg Leu Leu Gly Ile Cys Leu
            740             745             750

Thr Ser Thr Val Gln Leu Val Thr Gln Leu Met Pro Tyr Gly Cys Leu
    755             760             765
```

Leu Asp His Val Arg Glu Asn Arg Gly Arg Leu Gly Ser Gln Asp Leu
    770   775   780

Leu Asn Trp Cys Met Gln Ile Ala Lys Gly Met Ser Tyr Leu Glu Asp
785   790   795   800

Val Arg Leu Val His Arg Asp Leu Ala Ala Arg Asn Val Leu Val Lys
                805   810   815

Ser Pro Asn His Val Lys Ile Thr Asp Phe Gly Leu Ala Arg Leu Leu
            820   825   830

Asp Ile Asp Glu Thr Glu Tyr His Ala Asp Gly Gly Lys Val Pro Ile
        835   840   845

Lys Trp Met Ala Leu Glu Ser Ile Leu Arg Arg Arg Phe Thr His Gln
    850   855   860

Ser Asp Val Trp Ser Tyr Gly Val Thr Val Trp Glu Leu Met Thr Phe
865   870   875   880

Gly Ala Lys Pro Tyr Asp Gly Ile Pro Ala Arg Glu Ile Pro Asp Leu
            885   890   895

Leu Glu Lys Gly Glu Arg Leu Pro Gln Pro Pro Ile Cys Thr Ile Asp
            900   905   910

Val Tyr Met Ile Met Val Lys Cys Trp Met Ile Asp Ser Glu Cys Arg
        915   920   925

Pro Arg Phe Arg Glu Leu Val Ser Glu Phe Ser Arg Met Ala Arg Asp
    930   935   940

Pro Gln Arg Phe Val Val Ile Gln Asn Glu Asp Leu Gly Pro Ala Ser
945   950   955   960

Pro Leu Asp Ser Thr Phe Tyr Arg Ser Leu Leu Glu Asp Asp Asp Met
            965   970   975

Gly Asp Leu Val Asp Ala Glu Glu Tyr Leu Val Pro Gln Gln Gly Phe
        980   985   990

Phe Cys Pro Asp Pro Ala Pro Gly Ala Gly Gly Met Val His His Arg
    995   1000   1005

His Arg Ser Ser Ser Thr Arg Ser Gly Gly Gly Asp Leu Thr Leu

```
        1010                    1015                    1020

    Gly Leu  Glu Pro Ser Glu Glu  Glu Ala  Pro Arg Ser. Pro Leu Ala
        1025                    1030                    1035


    Pro Ser  Glu Gly Ala Gly Ser  Asp Val Phe Asp Gly  Asp Leu Gly
        1040                    1045                    1050


    Met Gly  Ala Ala Lys Gly Leu  Gln Ser Leu Pro Thr  His Asp Pro
        1055                    1060                    1065


    Ser Pro  Leu Gln Arg Tyr Ser  Glu Asp Pro Thr Val  Pro Leu Pro
        1070                    1075                    1080


    Ser Glu  Thr Asp Gly Tyr Val  Ala Pro Leu Thr Cys  Ser Pro Gln
        1085                    1090                    1095


    Pro Glu  Tyr Val Asn Gln Pro  Asp Val Arg Pro Gln  Pro Pro Ser
        1100                    1105                    1110


    Pro Arg  Glu Gly Pro Leu Pro  Ala Ala Arg Pro Ala  Gly Ala Thr
        1115                    1120                    1125


    Leu Glu  Arg Ala Lys Thr Leu  Ser Pro Gly Lys Asn  Gly Val Val
        1130                    1135                    1140


    Lys Asp  Val Phe Ala Phe Gly  Gly Ala Val Glu Asn  Pro Glu Tyr
        1145                    1150                    1155


    Leu Thr  Pro Gln Gly Gly Ala  Ala Pro Gln Pro His  Pro Pro Pro
        1160                    1165                    1170


    Ala Phe  Ser Pro Ala Phe Asp  Asn Leu Tyr Tyr Trp  Asp Gln Asp
        1175                    1180                    1185


    Pro Pro  Glu Arg Gly Ala Pro  Pro Ser Thr Phe Lys  Gly Thr Pro
        1190                    1195                    1200


    Thr Ala  Glu Asn Pro Glu Tyr  Leu Gly Leu Asp Val  Pro Val
        1205                    1210                    1215


    <210>  181
    <211>  1375
    <212>  PRT
    <213>  Homo sapien

    <400>  181
```

```
Met Glu Leu Ala Ala Leu Cys Arg Trp Gly Leu Leu Leu Ala Leu Leu
1               5                   10                  15

Pro Pro Gly Ala Ala Ser Thr Gln Val Cys Thr Gly Thr Asp Met Lys
            20                  25                  30

Leu Arg Leu Pro Ala Ser Pro Glu Thr His Leu Asp Met Leu Arg His
        35                  40                  45

Leu Tyr Gln Gly Cys Gln Val Val Gln Gly Asn Leu Glu Leu Thr Tyr
    50                  55                  60

Leu Pro Thr Asn Ala Ser Leu Ser Phe Leu Gln Asp Ile Gln Glu Val
65                  70                  75                  80

Gln Gly Tyr Val Leu Ile Ala His Asn Gln Val Arg Gln Val Pro Leu
                85                  90                  95

Gln Arg Leu Arg Ile Val Arg Gly Thr Gln Leu Phe Glu Asp Asn Tyr
            100                 105                 110

Ala Leu Ala Val Leu Asp Asn Gly Asp Pro Leu Asn Asn Thr Thr Pro
        115                 120                 125

Val Thr Gly Ala Ser Pro Gly Gly Leu Arg Glu Leu Gln Leu Arg Ser
        130                 135                 140

Leu Thr Glu Ile Leu Lys Gly Gly Val Leu Ile Gln Arg Asn Pro Gln
145                 150                 155                 160

Leu Cys Tyr Gln Asp Thr Ile Leu Trp Lys Asp Ile Phe His Lys Asn
                165                 170                 175

Asn Gln Leu Ala Leu Thr Leu Ile Asp Thr Asn Arg Ser Arg Ala Cys
            180                 185                 190

His Pro Cys Ser Pro Met Cys Lys Gly Ser Arg Cys Trp Gly Glu Ser
        195                 200                 205

Ser Glu Asp Cys Gln Ser Leu Thr Arg Thr Val Cys Ala Gly Gly Cys
    210                 215                 220

Ala Arg Cys Lys Gly Pro Leu Pro Thr Asp Cys Cys His Glu Gln Cys
225                 230                 235                 240
```

```
Ala Ala Gly Cys Thr Gly Pro Lys His Ser Asp Cys Leu Ala Cys Leu
            245               250                   255

His Phe Asn His Ser Gly Ile Cys Glu Leu His Cys Pro Ala Leu Val
            260               265               270

Thr Tyr Asn Thr Asp Thr Phe Glu Ser Met Pro Asn Pro Glu Gly Arg
        275               280               285

Tyr Thr Phe Gly Ala Ser Cys Val Thr Ala Cys Pro Tyr Asn Tyr Leu
    290               295               300

Ser Thr Asp Val Gly Ser Cys Thr Leu Val Cys Pro Leu His Asn Gln
305               310               315               320

Glu Val Thr Ala Glu Asp Gly Thr Gln Arg Cys Glu Lys Cys Ser Lys
            325               330               335

Pro Cys Ala Arg Val Cys Tyr Gly Leu Gly Met Glu His Leu Arg Glu
            340               345               350

Val Arg Ala Val Thr Ser Ala Asn Ile Gln Glu Phe Ala Gly Cys Lys
            355               360               365

Lys Ile Phe Gly Ser Leu Ala Phe Leu Pro Glu Ser Phe Asp Gly Asp
    370               375               380

Pro Ala Ser Asn Thr Ala Pro Leu Gln Pro Glu Gln Leu Gln Val Phe
305               390               395               400

Glu Thr Leu Glu Glu Ile Thr Gly Tyr Leu Tyr Ile Ser Ala Trp Pro
            405               410               415

Asp Ser Leu Pro Asp Leu Ser Val Phe Gln Asn Leu Gln Val Ile Arg
            420               425               430

Gly Arg Ile Leu His Asn Gly Ala Tyr Ser Leu Thr Leu Gln Gly Leu
        435               440               445

Gly Ile Ser Trp Leu Gly Leu Arg Ser Leu Arg Glu Leu Gly Ser Gly
    450               455               460

Leu Ala Leu Ile His His Asn Thr His Leu Cys Phe Val His Thr Val
465               470               475               480

Pro Trp Asp Gln Leu Phe Arg Asn Pro His Gln Ala Leu Leu His Thr
```

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                    485                490                495

Ala Asn Arg Pro Glu Asp Glu Cys Gly Lys Thr Gly Ser Pro Val Cys
            500                505                510

Ala Leu Pro Ile Cys Gln His Thr Ala Val Pro Arg Gly Pro Trp Gln
            515                520                525

Gln Arg Ser Trp Thr Cys Ala Asp Cys Pro Ser Leu Cys Thr Leu Leu
    530                535                540

Asp Ser Ala Gln Leu Trp Leu Ala Trp Pro Leu Gly Met Ala Ser Leu
545                550                555                560

Ala Gly Ser Tyr Leu Pro Trp His Pro Ser Leu Pro Leu Phe Ser Glu
                565                570                575

Ile Ser Glu Leu Phe Leu Ser Leu His Arg Pro His Leu Ser Pro Pro
            580                585                590

Leu Gln Pro Thr Ala Met Pro Thr Ala Ser Ser Leu Val His Leu Asp
        595                600                605

Leu Gly Pro Pro Leu Lys Val Pro Cys Gly Pro Phe Leu Leu Thr Ala
    610                615                620

Val Gly Glu Gly Leu Ala Cys His Gln Leu Cys Ala Arg Gly His Cys
625                630                635                640

Trp Gly Pro Gly Pro Thr Gln Cys Val Asn Cys Ser Gln Phe Leu Arg
                645                650                655

Gly Gln Glu Cys Val Glu Glu Cys Arg Val Leu Gln Gly Leu Pro Arg
                660                665                670

Glu Tyr Val Asn Ala Arg His Cys Leu Pro Cys His Pro Glu Cys Gln
        675                680                685

Pro Gln Asn Gly Ser Val Thr Cys Phe Gly Pro Glu Ala Asp Gln Cys
    690                695                700

Val Ala Cys Ala His Tyr Lys Asp Pro Pro Phe Cys Val Ala Arg Cys
705                710                715                720

Pro Ser Gly Val Lys Pro Asp Leu Ser Tyr Met Pro Ile Trp Lys Phe
                725                730                735
```

Pro Asp Glu Glu Gly Ala Cys Gln Pro Cys Pro Ile Asn Cys Thr His
        740   745   750

Ser Cys Val Asp Leu Asp Asp Lys Gly Cys Pro Ala Glu Gln Arg Ala
        755   760   765

Ser Pro Leu Thr Ser Ile Ile Ser Ala Val Val Gly Ile Leu Leu Val
    770   775   780

Val Val Leu Gly Val Val Phe Gly Ile Leu Ile Lys Arg Arg Gln Gln
785   790   795   800

Lys Ile Arg Lys Tyr Thr Met Arg Arg Leu Leu Gln Glu Thr Glu Leu
            805   810   815

Val Glu Pro Leu Thr Pro Ser Gly Ala Met Pro Asn Gln Ala Gln Met
        820   825   830

Arg Ile Leu Lys Glu Thr Glu Leu Arg Lys Val Lys Val Leu Gly Ser
        835   840   845

Gly Ala Phe Gly Thr Val Tyr Lys Gly Ile Trp Ile Pro Asp Gly Glu
    850   855   860

Asn Val Lys Ile Pro Val Ala Ile Lys Val Leu Arg Glu Asn Thr Ser
865   870   875   880

Pro Lys Ala Asn Lys Glu Ile Leu Asp Glu Ala Tyr Val Met Ala Gly
            885   890   895

Val Gly Ser Pro Tyr Val Ser Arg Leu Leu Gly Ile Cys Leu Thr Ser
        900   905   910

Thr Val Gln Leu Val Thr Gln Leu Met Pro Tyr Gly Cys Leu Leu Asp
        915   920   925

His Val Arg Glu Asn Arg Gly Arg Leu Gly Ser Gln Asp Leu Leu Asn
    930   935   940

Trp Cys Met Gln Ile Ala Lys Gly Met Ser Tyr Leu Glu Asp Val Arg
945   950   955   960

Leu Val His Arg Asp Leu Ala Ala Arg Asn Val Leu Val Lys Ser Pro
            965   970   975

Asn His Val Lys Ile Thr Asp Phe Gly Leu Ala Arg Leu Leu Asp Ile
        980   985   990

Asp Glu Thr Glu Tyr His Ala Asp Gly Gly Lys Val Pro Ile Lys Trp
        995   1000   1005

Met Ala Leu Glu Ser Ile Leu Arg Arg Arg Phe Thr His Gln Ser
    1010   1015   1020

Asp Val Trp Ser Tyr Gly Val Thr Val Trp Glu Leu Met Thr Phe
    1025   1030   1035

Gly Ala Lys Pro Tyr Asp Gly Ile Pro Ala Arg Glu Ile Pro Asp
    1040   1045   1050

Leu Leu Glu Lys Gly Glu Arg Leu Pro Gln Pro Pro Ile Cys Thr
    1055   1060   1065

Ile Asp Val Tyr Met Ile Met Val Lys Cys Trp Met Ile Asp Ser
    1070   1075   1080

Glu Cys Arg Pro Arg Phe Arg Glu Leu Val Ser Glu Phe Ser Arg
    1085   1090   1095

Met Ala Arg Asp Pro Gln Arg Phe Val Val Ile Gln Asn Glu Asp
    1100   1105   1110

Leu Gly Pro Ala Ser Pro Leu Asp Ser Thr Phe Tyr Arg Ser Leu
    1115   1120   1125

Leu Glu Asp Asp Asp Met Gly Asp Leu Val Asp Ala Glu Glu Tyr
    1130   1135   1140

Leu Val Pro Gln Gln Gly Phe Phe Cys Pro Asp Pro Ala Pro Gly
    1145   1150   1155

Ala Gly Gly Met Val His His Arg His Arg Ser Ser Ser Thr Arg
    1160   1165   1170

Ser Gly Gly Gly Asp Leu Thr Leu Gly Leu Glu Pro Ser Glu Glu
    1175   1180   1185

Glu Ala Pro Arg Ser Pro Leu Ala Pro Ser Glu Gly Ala Gly Ser
    1190   1195   1200

Asp Val Phe Asp Gly Asp Leu Gly Met Gly Ala Ala Lys Gly Leu
1205   1210   1215

Gln Ser Leu Pro Thr His Asp Pro Ser Pro Leu Gln Arg Tyr Ser
1220   1225   1230

Glu Asp Pro Thr Val Pro Leu Pro Ser Glu Thr Asp Gly Tyr Val
1235   1240   1245

Ala Pro Leu Thr Cys Ser Pro Gln Pro Glu Tyr Val Asn Gln Pro
1250   1255   1260

Asp Val Arg Pro Gln Pro Pro Ser Pro Arg Glu Gly Pro Leu Pro
1265   1270   1275

Ala Ala Arg Pro Ala Gly Ala Thr Leu Glu Arg Ala Lys Thr Leu
1280   1285   1290

Ser Pro Gly Lys Asn Gly Val Val Lys Asp Val Phe Ala Phe Gly
1295   1300   1305

Gly Ala Val Glu Asn Pro Glu Tyr Leu Thr Pro Gln Gly Gly Ala
1310   1315   1320

Ala Pro Gln Pro His Pro Pro Pro Ala Phe Ser Pro Ala Phe Asp
1325   1330   1335

Asn Leu Tyr Tyr Trp Asp Gln Asp Pro Pro Glu Arg Gly Ala Pro
1340   1345   1350

Pro Ser Thr Phe Lys Gly Thr Pro Thr Ala Glu Asn Pro Glu Tyr
1355   1360   1365

Leu Gly Leu Asp Val Pro Val
1370   1375

<210> 182
<211> 575
<212> PRT
<213> Homo sapien

<400> 182

Met Glu Leu Ala Ala Leu Cys Arg Trp Gly Leu Leu Leu Ala Leu Leu
1   5   10   15

Pro Pro Gly Ala Ala Ser Thr Gln Val Cys Thr Gly Thr Asp Met Lys
20   25   30

Leu Arg Leu Pro Ala Ser Pro Glu Thr His Leu Asp Met Leu Arg His
        35   40   45

Leu Tyr Gln Gly Cys Gln Val Val Gln Gly Asn Leu Glu Leu Thr Tyr
    50   55   60

Leu Pro Thr Asn Ala Ser Leu Ser Phe Leu Gln Asp Ile Gln Glu Val
65   70   75   80

Gln Gly Tyr Val Leu Ile Ala His Asn Gln Val Arg Gln Val Pro Leu
                85   90   95

Gln Arg Leu Arg Ile Val Arg Gly Thr Gln Leu Phe Glu Asp Asn Tyr
            100   105   110

Ala Leu Ala Val Leu Asp Asn Gly Asp Pro Leu Asn Asn Thr Thr Pro
        115   120   125

Val Thr Gly Ala Ser Pro Gly Gly Leu Arg Glu Leu Gln Leu Arg Ser
    130   135   140

Leu Thr Glu Ile Leu Lys Gly Gly Val Leu Ile Gln Arg Asn Pro Gln
145   150   155   160

Leu Cys Tyr Gln Asp Thr Ile Leu Trp Lys Asp Ile Phe His Lys Asn
            165   170   175

Asn Gln Leu Ala Leu Thr Leu Ile Asp Thr Asn Arg Ser Arg Ala Cys
        180   185   190

His Pro Cys Ser Pro Met Cys Lys Gly Ser Arg Cys Trp Gly Glu Ser
        195   200   205

Ser Glu Asp Cys Gln Ser Leu Thr Arg Thr Val Cys Ala Gly Gly Cys
    210   215   220

Ala Arg Cys Lys Gly Pro Leu Pro Thr Asp Cys Cys His Glu Gln Cys
225   230   235   240

Ala Ala Gly Cys Thr Gly Pro Lys His Ser Asp Cys Leu Ala Cys Leu
            245   250   255

His Phe Asn His Ser Gly Ile Cys Glu Leu His Cys Pro Ala Leu Val
        260   265   270

231

Thr Tyr Asn Thr Asp Thr Phe Glu Ser Met Pro Asn Pro Glu Gly Arg
        275   280   285

Tyr Thr Phe Gly Ala Ser Cys Val Thr Ala Cys Pro Tyr Asn Tyr Leu
    290   295   300

Ser Thr Asp Val Gly Ser Cys Thr Leu Val Cys Pro Leu His Asn Gln
305   310   315   320

Glu Val Thr Ala Glu Asp Gly Thr Gln Arg Cys Glu Lys Cys Ser Lys
                325   330   335

Pro Cys Ala Arg Val Cys Tyr Gly Leu Gly Met Glu His Leu Arg Glu
            340   345   350

Val Arg Ala Val Thr Ser Ala Asn Ile Gln Glu Phe Ala Gly Cys Lys
        355   360   365

Lys Ile Phe Gly Ser Leu Ala Phe Leu Pro Glu Ser Phe Asp Gly Asp
    370   375   380

Pro Ala Ser Asn Thr Ala Pro Leu Gln Pro Glu Gln Leu Gln Val Phe
385   390   395   400

Glu Thr Leu Glu Glu Ile Thr Gly Tyr Leu Tyr Ile Ser Ala Trp Pro
            405   410   415

Asp Ser Leu Pro Asp Leu Ser Val Phe Gln Asn Leu Gln Val Ile Arg
            420   425   430

Gly Arg Ile Leu His Asn Gly Ala Tyr Ser Leu Thr Leu Gln Gly Leu
        435   440   445

Gly Ile Ser Trp Leu Gly Leu Arg Ser Leu Arg Glu Leu Gly Ser Gly
    450   455   460

Leu Ala Leu Ile His His Asn Thr His Leu Cys Phe Val His Thr Val
465   470   475   480

Pro Trp Asp Gln Leu Phe Arg Asn Pro His Gln Ala Leu Leu His Thr
            485   490   495

Ala Asn Arg Pro Glu Asp Glu Cys Gly Lys Thr Gly Ser Pro Val Cys
            500   505   510

```
Ala Leu Pro Ile Cys Gln His Thr Ala Val Pro Arg Gly Pro Trp Gln
        515             520             525

Gln Arg Ser Trp Thr Cys Ala Asp Cys Pro Ser Leu Cys Thr Leu Leu
    530             535             540

Asp Ser Ala Gln Leu Trp Leu Ala Trp Pro Leu Gly Met Ala Ser Leu
545             550             555             560

Ala Gly Ser Tyr Leu Pro Trp His Pro Ser Leu Pro Leu Cys Phe
            565             570             575
```

<210> 183
<211> 815
<212> PRT
<213> Homo sapien

<400> 183

```
Leu Gly Pro Thr Cys Leu Gly Ile Leu Pro Ser Pro Ser Val Ser Glu
1           5               10              15

Ile Ser Glu Leu Phe Leu Ser Leu His Arg Pro His Leu Ser Pro Pro
        20              25              30

Leu Gln Pro Thr Ala Met Pro Thr Ala Ser Ser Leu Val His Leu Asp
        35              40              45

Leu Gly Pro Pro Leu Lys Val Pro Cys Gly Pro Phe Leu Leu Thr Ala
50              55              60

Val Gly Glu Gly Leu Ala Cys His Gln Leu Cys Ala Arg Gly His Cys
65              70              75              80

Trp Gly Pro Gly Pro Thr Gln Cys Val Asn Cys Ser Gln Phe Leu Arg
            85              90              95

Gly Gln Glu Cys Val Glu Glu Cys Arg Val Leu Gln Gly Leu Pro Arg
            100             105             110

Glu Tyr Val Asn Ala Arg His Cys Leu Pro Cys His Pro Glu Cys Gln
        115             120             125

Pro Gln Asn Gly Ser Val Thr Cys Phe Gly Pro Glu Ala Asp Gln Cys
        130             135             140

Val Ala Cys Ala His Tyr Lys Asp Pro Pro Phe Cys Val Ala Arg Cys
145             150             155             160
```

Pro Ser Gly Val Lys Pro Asp Leu Ser Tyr Met Pro Ile Trp Lys Phe
             165   170   175

Pro Asp Glu Glu Gly Ala Cys Gln Pro Cys Pro Ile Asn Cys Thr His
         180   185   190

Ser Cys Val Asp Leu Asp Asp Lys Gly Cys Pro Ala Glu Gln Arg Ala
         195   200   205

Ser Pro Leu Thr Ser Ile Ile Ser Ala Val Val Gly Ile Leu Leu Val
    210   215   220

Val Val Leu Gly Val Val Phe Gly Ile Leu Ile Lys Arg Arg Gln Gln
225   230   235   240

Lys Ile Arg Lys Tyr Thr Met Arg Arg Leu Leu Gln Glu Thr Glu Leu
             245   250   255

Val Glu Pro Leu Thr Pro Ser Gly Ala Met Pro Asn Gln Ala Gln Met
         260   265   270

Arg Ile Leu Lys Glu Thr Glu Leu Arg Lys Val Lys Val Leu Gly Ser
         275   280   285

Gly Ala Phe Gly Thr Val Tyr Lys Gly Ile Trp Ile Pro Asp Gly Glu
    290   295   300

Asn Val Lys Ile Pro Val Ala Ile Lys Val Leu Arg Glu Asn Thr Ser
305   310   315   320

Pro Lys Ala Asn Lys Glu Ile Leu Asp Glu Ala Tyr Val Met Ala Gly
             325   330   335

Val Gly Ser Pro Tyr Val Ser Arg Leu Leu Gly Ile Cys Leu Thr Ser
         340   345   350

Thr Val Gln Leu Val Thr Gln Leu Met Pro Tyr Gly Cys Leu Leu Asp
         355   360   365

His Val Arg Glu Asn Arg Gly Arg Leu Gly Ser Gln Asp Leu Leu Asn
    370   375   380

Trp Cys Met Gln Ile Ala Lys Gly Met Ser Tyr Leu Glu Asp Val Arg
385   390   395   400

Leu Val His Arg Asp Leu Ala Ala Arg Asn Val Leu Val Lys Ser Pro
            405   410   415

Asn His Val Lys Ile Thr Asp Phe Gly Leu Ala Arg Leu Leu Asp Ile
            420   425   430

Asp Glu Thr Glu Tyr His Ala Asp Gly Gly Lys Val Pro Ile Lys Trp
            435   440   445

Met Ala Leu Glu Ser Ile Leu Arg Arg Arg Phe Thr His Gln Ser Asp
    450   455   460

Val Trp Ser Tyr Gly Val Thr Val Trp Glu Leu Met Thr Phe Gly Ala
465   470   475   480

Lys Pro Tyr Asp Gly Ile Pro Ala Arg Glu Ile Pro Asp Leu Leu Glu
            485   490   495

Lys Gly Glu Arg Leu Pro Gln Pro Pro Ile Cys Thr Ile Asp Val Tyr
            500   505   510

Met Ile Met Val Lys Cys Trp Met Ile Asp Ser Glu Cys Arg Pro Arg
            515   520   525

Phe Arg Glu Leu Val Ser Glu Phe Ser Arg Met Ala Arg Asp Pro Gln
    530   535   540

Arg Phe Val Val Ile Gln Asn Glu Asp Leu Gly Pro Ala Ser Pro Leu
545   550   555   560

Asp Ser Thr Phe Tyr Arg Ser Leu Leu Glu Asp Asp Asp Met Gly Asp
            565   570   575

Leu Val Asp Ala Glu Glu Tyr Leu Val Pro Gln Gln Gly Phe Phe Cys
            580   585   590

Pro Asp Pro Ala Pro Gly Ala Gly Gly Met Val His His Arg His Arg
            595   600   605

Ser Ser Ser Thr Arg Ser Gly Gly Gly Asp Leu Thr Leu Gly Leu Glu
    610   615   620

Pro Ser Glu Glu Glu Ala Pro Arg Ser Pro Leu Ala Pro Ser Glu Gly
625   630   635   640

```
Ala Gly Ser Asp Val Phe Asp Gly Asp Leu Gly Met Gly Ala Ala Lys
            645             650             655

Gly Leu Gln Ser Leu Pro Thr His Asp Pro Ser Pro Leu Gln Arg Tyr
            660             665             670

Ser Glu Asp Pro Thr Val Pro Leu Pro Ser Glu Thr Asp Gly Tyr Val
    675             680             685

Ala Pro Leu Thr Cys Ser Pro Gln Pro Glu Tyr Val Asn Gln Pro Asp
690             695             700

Val Arg Pro Gln Pro Pro Ser Pro Arg Glu Gly Pro Leu Pro Ala Ala
705             710             715             720

Arg Pro Ala Gly Ala Thr Leu Glu Arg Ala Lys Thr Leu Ser Pro Gly
            725             730             735

Lys Asn Gly Val Val Lys Asp Val Phe Ala Phe Gly Gly Ala Val Glu
            740             745             750

Asn Pro Glu Tyr Leu Thr Pro Gln Gly Gly Ala Ala Pro Gln Pro His
            755             760             765

Pro Pro Pro Ala Phe Ser Pro Ala Phe Asp Asn Leu Tyr Tyr Trp Asp
770             775             780

Gln Asp Pro Pro Glu Arg Gly Ala Pro Pro Ser Thr Phe Lys Gly Thr
785             790             795             800

Pro Thr Ala Glu Asn Pro Glu Tyr Leu Gly Leu Asp Val Pro Val
            805             810             815


<210>   184
<211>   164
<212>   PRT
<213>   Homo sapien

<400>   184

Ser Arg Gly Ser Leu Ser Thr Phe Cys Ser Ala Leu Thr Asp Pro Ser
1           5               10              15

Pro Leu Gln Arg Tyr Ser Glu Asp Pro Thr Val Pro Leu Pro Ser Glu
            20              25              30

Thr Asp Gly Tyr Val Ala Pro Leu Thr Cys Ser Pro Gln Pro Glu Tyr
            35              40              45
```

Val Asn Gln Pro Asp Val Arg Pro Gln Pro Pro Ser Pro Arg Glu Gly
    50   55   60

Pro Leu Pro Ala Ala Arg Pro Ala Gly Ala Thr Leu Glu Arg Ala Lys
65   70   75   80

Thr Leu Ser Pro Gly Lys Asn Gly Val Val Lys Asp Val Phe Ala Phe
            85   90   95

Gly Gly Ala Val Glu Asn Pro Glu Tyr Leu Thr Pro Gln Gly Gly Ala
            100   105   110

Ala Pro Gln Pro His Pro Pro Pro Ala Phe Ser Pro Ala Phe Asp Asn
    115   120   125

Leu Tyr Tyr Trp Asp Gln Asp Pro Pro Glu Arg Gly Ala Pro Pro Ser
    130   135   140

Thr Phe Lys Gly Thr Pro Thr Ala Glu Asn Pro Glu Tyr Leu Gly Leu
145   150   155   160

Asp Val Pro Val

<210>   185
<211>   162
<212>   PRT
<213>   Homo sapien

<400>   185

Arg Ile Leu Val Asp Phe Cys Ser Ala Leu Thr Asp Pro Ser Pro Leu
1   5   10   15

Gln Arg Tyr Ser Glu Asp Pro Thr Val Pro Leu Pro Ser Glu Thr Asp
            20   25   30

Gly Tyr Val Ala Pro Leu Thr Cys Ser Pro Gln Pro Glu Tyr Val Asn
            35   40   45

Gln Pro Asp Val Arg Pro Gln Pro Pro Ser Pro Arg Glu Gly Pro Leu
    50   55   60

Pro Ala Ala Arg Pro Ala Gly Ala Thr Leu Glu Arg Ala Lys Thr Leu
65   70   75   80

Ser Pro Gly Lys Asn Gly Val Val Lys Asp Val Phe Ala Phe Gly Gly
                85   90   95

Ala Val Glu Asn Pro Glu Tyr Leu Thr Pro Gln Gly Gly Ala Ala Pro
            100   105   110

Gln Pro His Pro Pro Pro Ala Phe Ser Pro Ala Phe Asp Asn Leu Tyr
        115   120   125

Tyr Trp Asp Gln Asp Pro Pro Glu Arg Gly Ala Pro Pro Ser Thr Phe
    130   135   140

Lys Gly Thr Pro Thr Ala Glu Asn Pro Glu Tyr Leu Gly Leu Asp Val
145   150   155   160

Pro Val

<210>   186
<211>   75
<212>   PRT
<213>   Homo sapien

<400>   186

Leu Tyr Gly Pro Lys Val Ala Thr Pro Ser Ser Cys Leu Gln Pro Ser
1   5   10   15

Leu Arg Gln Pro Leu Leu Leu Gly Pro Gly Pro Thr Arg Ala Gly Gly
            20   25   30

Ser Thr Gln His Leu Gln Arg Asp Thr Tyr Gly Arg Glu Pro Arg Val
        35   40   45

Pro Gly Ser Gly Arg Ala Ser Val Asn Gln Lys Ala Lys Ser Ala Glu
    50   55   60

Ala Leu Met Cys Pro Gln Gly Ala Gly Lys Ala
65   70   75

<210>   187
<211>   100
<212>   PRT
<213>   Homo sapien

<400>   187

Cys Val Leu Arg Glu Gln Gly Arg Pro Asp Phe Cys Trp His Gln Glu
1   5   10   15

Val Gly Gly Pro Ser Asp His Phe Gln Gly Asn Leu Pro Cys Gln Glu
            20   25   30

Pro Val Leu Arg Asn Leu Pro Ser Cys Leu Ser Ser Gln Met Ala Gly
            35   40   45

Arg Gly Pro Ala Ser Leu Glu Glu Glu Gln His Trp Gly Val Phe Val
            50   55   60

Asp Ser Glu Ala Leu Pro Asn Glu Thr Leu Gly Ser Ser Gly Cys His
65   70   75   80

Ser Pro Ala Trp Pro Phe Pro Ser Arg Ser Trp Val Leu Lys Ala Leu
                85   90   95

Gly Lys Leu Ala
            100

<210> 188
<211> 678
<212> PRT
<213> Homo sapien

<400> 188

Met Glu Leu Ala Ala Leu Cys Arg Trp Gly Leu Leu Leu Ala Leu Leu
1   5   10   15

Pro Pro Gly Ala Ala Ser Thr Gln Val Cys Thr Gly Thr Asp Met Lys
            20   25   30

Leu Arg Leu Pro Ala Ser Pro Glu Thr His Leu Asp Met Leu Arg His
            35   40   45

Leu Tyr Gln Gly Cys Gln Val Val Gln Gly Asn Leu Glu Leu Thr Tyr
            50   55   60

Leu Pro Thr Asn Ala Ser Leu Ser Phe Leu Gln Asp Ile Gln Glu Val
65   70   75   80

Gln Gly Tyr Val Leu Ile Ala His Asn Gln Val Arg Gln Val Pro Leu
                85   90   95

Gln Arg Leu Arg Ile Val Arg Gly Thr Gln Leu Phe Glu Asp Asn Tyr
            100   105   110

Ala Leu Ala Val Leu Asp Asn Gly Asp Pro Leu Asn Asn Thr Thr Pro

```
            115                  120                  125

Val Thr Gly Ala Ser Pro Gly Gly Leu Arg Glu Leu Gln Leu Arg Ser
    130                 135                 140

Leu Thr Glu Ile Leu Lys Gly Gly Val Leu Ile Gln Arg Asn Pro Gln
145                 150                 155                 160

Leu Cys Tyr Gln Asp Thr Ile Leu Trp Lys Asp Ile Phe His Lys Asn
                165                 170                 175

Asn Gln Leu Ala Leu Thr Leu Ile Asp Thr Asn Arg Ser Arg Ala Cys
                180                 185                 190

His Pro Cys Ser Pro Met Cys Lys Gly Ser Arg Cys Trp Gly Glu Ser
        195                 200                 205

Ser Glu Asp Cys Gln Ser Leu Thr Arg Thr Val Cys Ala Gly Gly Cys
    210                 215                 220

Ala Arg Cys Lys Gly Pro Leu Pro Thr Asp Cys Cys His Glu Gln Cys
225                 230                 235                 240

Ala Ala Gly Cys Thr Gly Pro Lys His Ser Asp Cys Leu Ala Cys Leu
                245                 250                 255

His Phe Asn His Ser Gly Ile Cys Glu Leu His Cys Pro Ala Leu Val
            260                 265                 270

Thr Tyr Asn Thr Asp Thr Phe Glu Ser Met Pro Asn Pro Glu Gly Arg
        275                 280                 285

Tyr Thr Phe Gly Ala Ser Cys Val Thr Ala Cys Pro Tyr Asn Tyr Leu
    290                 295                 300

Ser Thr Asp Val Gly Ser Cys Thr Leu Val Cys Pro Leu His Asn Gln
305                 310                 315                 320

Glu Val Thr Ala Glu Asp Gly Thr Gln Arg Cys Glu Lys Cys Ser Lys
                325                 330                 335

Pro Cys Ala Arg Val Cys Tyr Gly Leu Gly Met Glu His Leu Arg Glu
            340                 345                 350

Val Arg Ala Val Thr Ser Ala Asn Ile Gln Glu Phe Ala Gly Cys Lys
            355                 360                 365
```

Lys Ile Phe Gly Ser Leu Ala Phe Leu Pro Glu Ser Phe Asp Gly Asp
    370   375   380

Pro Ala Ser Asn Thr Ala Pro Leu Gln Pro Glu Gln Leu Gln Val Phe
385   390   395   400

Glu Thr Leu Glu Glu Ile Thr Gly Tyr Leu Tyr Ile Ser Ala Trp Pro
            405   410   415

Asp Ser Leu Pro Asp Leu Ser Val Phe Gln Asn Leu Gln Val Ile Arg
            420   425   430

Gly Arg Ile Leu His Asn Gly Ala Tyr Ser Leu Thr Leu Gln Gly Leu
        435   440   445

Gly Ile Ser Trp Leu Gly Leu Arg Ser Leu Arg Glu Leu Gly Ser Gly
    450   455   460

Leu Ala Leu Ile His His Asn Thr His Leu Cys Phe Val His Thr Val
465   470   475   480

Pro Trp Asp Gln Leu Phe Arg Asn Pro His Gln Ala Leu Leu His Thr
            485   490   495

Ala Asn Arg Pro Glu Asp Glu Cys Val Gly Glu Gly Leu Ala Cys His
            500   505   510

Gln Leu Cys Ala Arg Gly His Cys Trp Gly Pro Gly Pro Thr Gln Cys
        515   520   525

Val Asn Cys Ser Gln Phe Leu Arg Gly Gln Glu Cys Val Glu Glu Cys
    530   535   540

Arg Val Leu Gln Gly Leu Pro Arg Glu Tyr Val Asn Ala Arg His Cys
545   550   555   560

Leu Pro Cys His Pro Glu Cys Gln Pro Gln Asn Gly Ser Val Thr Cys
            565   570   575

Phe Gly Pro Glu Ala Asp Gln Cys Val Ala Cys Ala His Tyr Lys Asp
            580   585   590

Pro Pro Phe Cys Val Ala Arg Cys Pro Ser Gly Val Lys Pro Asp Leu
            595   600   605

```
Ser Tyr Met Pro Ile Trp Lys Phe Pro Asp Glu Glu Gly Ala Cys Gln
    610             615             620
```

```
Pro Cys Pro Ile Asn Cys Thr His Ser Cys Val Asp Leu Asp Asp Lys
625             630             635             640
```

```
Gly Cys Pro Ala Glu Gln Arg Ala Arg Leu Ala Trp Thr Pro Gly Cys
            645             650             655
```

```
Thr Leu His Cys Pro Ser Leu Pro His Trp Met Leu Gly Gly His Cys
            660             665             670
```

```
Cys Arg Glu Gly Thr Pro
        675
```

```
<210>  189
<211>  195
<212>  PRT
<213>  Homo sapien

<400>  189
```

```
Met Ala Ala Gly Gln Arg Arg Ser Ser Leu Ser Arg Leu Gly Ser Gln
1               5               10              15
```

```
Ala Glu Gly Leu Leu Ile Ser Gln Thr Met Gly Gly Gln Ala Glu Thr
            20              25              30
```

```
Leu Leu Thr Ser Gln Thr Gly Trp Arg Pro Gly Arg Gly Cys Asn Leu
        35              40              45
```

```
Gly Ser Leu Gly Gly Gln Gly Arg Arg Leu Gly Gly Gly Cys Ser Glu
    50              55              60
```

```
Pro Arg Ser Arg His Cys Thr Pro Ala Leu Ala Pro Ile Glu His Trp
65              70              75              80
```

```
Val Asn Glu Thr Pro Ser Ala Ile Pro Ala Pro Arg Glu Ala Glu Val
                85              90              95
```

```
Val Asp His Ser Arg Leu Gly Ala Gly Val Glu Ala Lys Asn Tyr Glu
            100             105             110
```

```
Glu Ile Ala Lys Val Glu Lys Leu Lys Pro Leu Glu Val Glu Leu Arg
        115             120             125
```

```
Arg Leu Glu Asp Leu Ser Glu Ser Ile Val Asn Asp Phe Ala Tyr Met
```

```
              130                    135                    140

Lys Lys Arg Glu Glu Glu Met Arg Asp Thr Asn Glu Ser Thr Asn Thr
145             150             155                     160


Arg Val Leu Tyr Phe Ser Ile Phe Ser Met Phe Cys Leu Ile Gly Leu
                165             170                 175


Ala Thr Trp Gln Val Phe Tyr Leu Arg Arg Phe Phe Lys Ala Lys Lys
            180             185             190


Leu Ile Glu
        195
```

```
<210>  190
<211>  114
<212>  PRT
<213>  Homo sapien

<220>
<221>  MISC_FEATURE
<222>  (15)..(16)
<223>  x=any amino acid


<400>  190

Thr Arg Leu Arg Leu Gln Ser Arg His Leu Gly Arg Pro Arg Xaa Xaa
1               5               10              Pro     15


Asp His Ser Arg Leu Gly Ala Gly Val Glu Ala Lys Asn Tyr Glu Glu
            20              25                  30


Ile Ala Lys Val Glu Lys Leu Lys Pro Leu Glu Val Glu Leu Arg Arg
        35              40              45


Leu Glu Asp Leu Ser Glu Ser Ile Val Asn Asp Phe Ala Tyr Met Lys
    50              55                  60


Lys Arg Glu Glu Glu Met Arg Asp Thr Asn Glu Ser Thr Asn Thr Arg
65              70              75                      80


Val Leu Tyr Phe Ser Ile Phe Ser Met Phe Cys Leu Ile Gly Leu Ala
                85              90                  95


Thr Trp Gln Val Phe Tyr Leu Arg Arg Phe Phe Lys Ala Lys Lys Leu
            100             105             110


Ile Glu
```

```
<210>  191
<211>  64
<212>  PRT
<213>  Homo sapien

<400>  191

Met Ser Ala Leu Trp Arg Phe Gly Leu Phe Asn Thr Gly Leu Gly Gln
1               5                   10                  15

Asp Ser Glu Gly His Cys Gly Pro Ser Thr Ile Arg Ser Phe Pro Phe
            20                  25                  30

Pro Leu Met Thr Ser Pro Val Ala Leu Phe Ser Leu Phe Gln Met Ala
        35                  40                  45

Gln Thr Thr Pro Pro Phe Pro Pro His Thr Pro Ile Thr Val Gln Gly
        50                  55                  60


<210>  192
<211>  325
<212>  PRT
<213>  Homo sapien

<400>  192

His Arg Ile Gly Thr Gly Phe Arg Gly Thr Leu Trp Pro Phe Tyr Asn
1                5                   10                  15

Gln Glu Leu Pro Leu Ser Ser Asp Asp Ile Thr Cys Gly Phe Val Leu
            20                  25                  30

Phe Val Pro Asp Gly Pro Asp Asp Pro Thr Ile Ser Pro Ser Tyr Thr
        35                  40                  45

Tyr Tyr Arg Pro Gly Val Asn Leu Ser Leu Ser Cys His Ala Ala Ser
    50                  55                  60

Asn Pro Pro Ala Gln Tyr Ser Trp Leu Ile Asp Gly Asn Ile Gln Gln
65                  70                  75                  80

His Thr Gln Glu Leu Phe Ile Ser Asn Ile Thr Glu Lys Asn Ser Gly
            85                  90                  95

Leu Tyr Thr Cys Gln Ala Asn Asn Ser Ala Ser Gly His Ser Arg Thr
            100                 105                 110
```

Thr Val Lys Thr Ile Thr Val Ser Ala Glu Leu Pro Lys Pro Ser Ile
        115   120   125

Ser Ser Asn Asn Ser Lys Pro Val Glu Asp Lys Asp Ala Val Ala Phe
        130   135   140

Thr Cys Glu Pro Glu Ala Gln Asn Thr Thr Tyr Leu Trp Trp Val Asn
145   150   155   160

Gly Gln Ser Leu Pro Val Ser Pro Arg Leu Gln Leu Ser Asn Gly Asn
                165   170   175

Arg Thr Leu Thr Leu Phe Asn Val Thr Arg Asn Asp Ala Arg Ala Tyr
            180   185   190

Val Cys Gly Ile Gln Asn Ser Val Ser Ala Asn Arg Ser Asp Pro Val
        195   200   205

Thr Leu Asp Val Leu Tyr Gly Pro Asp Thr Pro Ile Ile Ser Pro Pro
    210   215   220

Asp Ser Ser Tyr Leu Ser Gly Ala Asn Leu Asn Leu Ser Cys His Ser
225   230   235   240

Ala Ser Asn Pro Ser Pro Gln Tyr Ser Trp Arg Ile Asn Gly Ile Pro
                245   250   255

Gln Gln His Thr Gln Val Leu Phe Ile Ala Lys Ile Thr Pro Asn Asn
            260   265   270

Asn Gly Thr Tyr Ala Cys Phe Val Ser Asn Leu Ala Thr Gly Arg Asn
            275   280   285

Asn Ser Ile Val Lys Ser Ile Thr Val Ser Ala Ser Gly Thr Ser Pro
    290   295   300

Gly Leu Ser Ala Gly Ala Thr Val Gly Ile Met Ile Gly Val Leu Val
305   310   315   320

Gly Val Ala Leu Ile
                325

<210>   193
<211>   702
<212>   PRT
<213>   Homo sapien

<400> 193

```
Met Glu Ser Pro Ser Ala Pro Pro His Arg Trp Cys Ile Pro Trp Gln
1               5                   10                  15

Arg Leu Leu Leu Thr Ala Ser Leu Leu Thr Phe Trp Asn Pro Pro Thr
            20                  25                  30

Thr Ala Lys Leu Thr Ile Glu Ser Thr Pro Phe Asn Val Ala Glu Gly
            35                  40                  45

Lys Glu Val Leu Leu Leu Val His Asn Leu Pro Gln His Leu Phe Gly
    50                  55                  60

Tyr Ser Trp Tyr Lys Gly Glu Arg Val Asp Gly Asn Arg Gln Ile Ile
65                  70                  75                  80

Gly Tyr Val Ile Gly Thr Gln Gln Ala Thr Pro Gly Pro Ala Tyr Ser
                85                  90                  95

Gly Arg Glu Ile Ile Tyr Pro Asn Ala Ser Leu Leu Ile Gln Asn Ile
            100                 105                 110

Ile Gln Asn Asp Thr Gly Phe Tyr Thr Leu His Val Ile Lys Ser Asp
            115                 120                 125

Leu Val Asn Glu Glu Ala Thr Gly Gln Phe Arg Val Tyr Pro Glu Leu
        130                 135                 140

Pro Lys Pro Ser Ile Ser Ser Asn Asn Ser Lys Pro Val Glu Asp Lys
145                 150                 155                 160

Asp Ala Val Ala Phe Thr Cys Glu Pro Glu Thr Gln Asp Ala Thr Tyr
                165                 170                 175

Leu Trp Trp Val Asn Asn Gln Ser Leu Pro Val Ser Pro Arg Leu Gln
            180                 185                 190

Leu Ser Asn Gly Asn Arg Thr Leu Thr Leu Phe Asn Val Thr Arg Asn
        195                 200                 205

Asp Thr Ala Ser Tyr Lys Cys Glu Thr Gln Asn Pro Val Ser Ala Arg
        210                 215                 220

Arg Ser Asp Ser Val Ile Leu Asn Val Leu Tyr Gly Pro Asp Ala Pro
225                 230                 235                 240
```

246

Thr Ile Ser Pro Leu Asn Thr Ser Tyr Arg Ser Gly Glu Asn Leu Asn
             245   250   255

Leu Ser Cys His Ala Ala Ser Asn Pro Pro Ala Gln Tyr Ser Trp Phe
             260   265   270

Val Asn Gly Thr Phe Gln Gln Ser Thr Gln Glu Leu Phe Ile Pro Asn
             275   280   285

Ile Thr Val Asn Asn Ser Gly Ser Tyr Thr Cys Gln Ala His Asn Ser
    290   295   300

Asp Thr Gly Leu Asn Arg Thr Thr Val Thr Thr Ile Thr Val Tyr Ala
305   310   315   320

Glu Pro Pro Lys Pro Phe Ile Thr Ser Asn Asn Ser Asn Pro Val Glu
             325   330   335

Asp Glu Asp Ala Val Ala Leu Thr Cys Glu Pro Glu Ile Gln Asn Thr
             340   345   350

Thr Tyr Leu Trp Trp Val Asn Asn Gln Ser Leu Pro Val Ser Pro Arg
             355   360   365

Leu Gln Leu Ser Asn Asp Asn Arg Thr Leu Thr Leu Leu Ser Val Thr
    370   375   380

Arg Asn Asp Val Gly Pro Tyr Glu Cys Gly Ile Gln Asn Glu Leu Ser
385   390   395   400

Val Asp His Ser Asp Pro Val Ile Leu Asn Val Leu Tyr Gly Pro Asp
             405   410   415

Asp Pro Thr Ile Ser Pro Ser Tyr Thr Tyr Tyr Arg Pro Gly Val Asn
             420   425   430

Leu Ser Leu Ser Cys His Ala Ala Ser Asn Pro Pro Ala Gln Tyr Ser
    435   440   445

Trp Leu Ile Asp Gly Asn Ile Gln Gln His Thr Gln Glu Leu Phe Ile
    450   455   460

Ser Asn Ile Thr Glu Lys Asn Ser Gly Leu Tyr Thr Cys Gln Ala Asn
465   470   475   480

```
Asn Ser Ala Ser Gly His Ser Arg Thr Thr Val Lys Thr Ile Thr Val
            485                     490                 495


Ser Ala Glu Leu Pro Lys Pro Ser Ile Ser Ser Asn Asn Ser Lys Pro
            500                 505                 510


Val Glu Asp Lys Asp Ala Val Ala Phe Thr Cys Glu Pro Glu Ala Gln
            515                 520                 525


Asn Thr Thr Tyr Leu Trp Trp Val Asn Gly Gln Ser Leu Pro Val Ser
    530                 535                 540


Pro Arg Leu Gln Leu Ser Asn Gly Asn Arg Thr Leu Thr Leu Phe Asn
545                 550                 555                 560


Val Thr Arg Asn Asp Ala Arg Ala Tyr Val Cys Gly Ile Gln Asn Ser
                565                 570                 575


Val Ser Ala Asn Arg Ser Asp Pro Val Thr Leu Asp Val Leu Tyr Gly
            580                 585                 590


Pro Asp Thr Pro Ile Ile Ser Pro Pro Asp Ser Ser Tyr Leu Ser Gly
            595                 600                 605


Ala Asn Leu Asn Leu Ser Cys His Ser Ala Ser Asn Pro Ser Pro Gln
    610                 615                 620


Tyr Ser Trp Arg Ile Asn Gly Ile Pro Gln Gln His Thr Gln Val Leu
625                 630                 635                 640


Phe Ile Ala Lys Ile Thr Pro Asn Asn Asn Gly Thr Tyr Ala Cys Phe
                645                 650                 655


Val Ser Asn Leu Ala Thr Gly Arg Asn Asn Ser Ile Val Lys Ser Ile
            660                 665                 670


Thr Val Ser Ala Ser Gly Thr Ser Pro Gly Leu Ser Ala Gly Ala Thr
            675                 680                 685


Val Gly Ile Met Ile Gly Val Leu Val Gly Val Ala Leu Ile
            690                 695                 700


<210>   194
<211>   726
<212>   PRT
<213>   Homo sapien
```

<400> 194

Met Glu Ser Pro Ser Ala Pro Pro His Arg Trp Cys Ile Pro Trp Gln
1   5   10   15

Arg Leu Leu Leu Thr Ala Ser Leu Leu Thr Phe Trp Asn Pro Pro Thr
        20   25   30

Thr Ala Lys Leu Thr Ile Glu Ser Thr Pro Phe Asn Val Ala Glu Gly
        35   40   45

Lys Glu Val Leu Leu Leu Val His Asn Leu Pro Gln His Leu Phe Gly
        50   55   60

Tyr Ser Trp Tyr Lys Gly Glu Arg Val Asp Gly Asn Arg Gln Ile Ile
65   70   75   80

Gly Tyr Val Ile Gly Thr Gln Gln Ala Thr Pro Gly Pro Ala Tyr Ser
                85   90   95

Gly Arg Glu Ile Ile Tyr Pro Asn Ala Ser Leu Leu Ile Gln Asn Ile
            100   105   110

Ile Gln Asn Asp Thr Gly Phe Tyr Thr Leu His Val Ile Lys Ser Asp
        115   120   125

Leu Val Asn Glu Glu Ala Thr Gly Gln Phe Arg Val Tyr Pro Glu Leu
        130   135   140

Pro Lys Pro Ser Ile Ser Ser Asn Asn Ser Lys Pro Val Glu Asp Lys
145   150   155   160

Asp Ala Val Ala Phe Thr Cys Glu Pro Glu Thr Gln Asp Ala Thr Tyr
                165   170   175

Leu Trp Trp Val Asn Asn Gln Ser Leu Pro Val Ser Pro Arg Leu Gln
            180   185   190

Leu Ser Asn Gly Asn Arg Thr Leu Thr Leu Phe Asn Val Thr Arg Asn
        195   200   205

Asp Thr Ala Ser Tyr Lys Cys Glu Thr Gln Asn Pro Val Ser Ala Arg
        210   215   220

Arg Ser Asp Ser Val Ile Leu Asn Val Leu Tyr Gly Pro Asp Ala Pro
225   230   235   240

Thr Ile Ser Pro Leu Asn Thr Ser Tyr Arg Ser Gly Glu Asn Leu Asn
              245   250   255

Leu Ser Cys His Ala Ala Ser Asn Pro Pro Ala Gln Tyr Ser Trp Phe
              260   265   270

Val Asn Gly Thr Phe Gln Gln Ser Thr Gln Glu Leu Phe Ile Pro Asn
              275   280   285

Ile Thr Val Asn Asn Ser Gly Ser Tyr Thr Cys Gln Ala His Asn Ser
    290   295   300

Asp Thr Gly Leu Asn Arg Thr Thr Val Thr Thr Ile Thr Val Tyr Ala
305   310   315   320

Glu Pro Pro Lys Pro Phe Ile Thr Ser Asn Asn Ser Asn Pro Val Glu
              325   330   335

Asp Glu Asp Ala Val Ala Leu Thr Cys Glu Pro Glu Ile Gln Asn Thr
              340   345   350

Thr Tyr Leu Trp Trp Val Asn Asn Gln Ser Leu Pro Val Ser Pro Arg
              355   360   365

Leu Gln Leu Ser Asn Asp Asn Arg Thr Leu Thr Leu Leu Ser Val Thr
    370   375   380

Arg Asn Asp Val Gly Pro Tyr Glu Cys Gly Ile Gln Asn Glu Leu Ser
385   390   395   400

Val Asp His Ser Asp Pro Val Ile Leu Asn Val Leu Tyr Gly Pro Asp
              405   410   415

Asp Pro Thr Ile Ser Pro Ser Tyr Thr Tyr Tyr Arg Pro Gly Val Asn
              420   425   430

Leu Ser Leu Ser Cys His Ala Ala Ser Asn Pro Pro Ala Gln Tyr Ser
              435   440   445

Trp Leu Ile Asp Gly Asn Ile Gln Gln His Thr Gln Glu Leu Phe Ile
    450   455   460

Ser Asn Ile Thr Glu Lys Asn Ser Gly Leu Tyr Thr Cys Gln Ala Asn
465   470   475   480

250

Asn Ser Ala Ser Gly His Ser Arg Thr Thr Val Lys Thr Ile Thr Val
              485   490   495

Ser Ala Glu Leu Pro Lys Pro Ser Ile Ser Ser Asn Asn Ser Lys Pro
              500   505   510

Val Glu Asp Lys Asp Ala Val Ala Phe Thr Cys Glu Pro Glu Ala Gln
              515   520   525

Asn Thr Thr Tyr Leu Trp Trp Val Asn Gly Gln Ser Leu Pro Val Ser
        530   535   540

Pro Arg Leu Gln Leu Ser Asn Gly Asn Arg Thr Leu Thr Leu Phe Asn
545   550   555   560

Val Thr Arg Asn Asp Ala Arg Ala Tyr Val Cys Gly Ile Gln Asn Ser
              565   570   575

Val Ser Ala Asn Arg Ser Asp Pro Val Thr Leu Asp Val Leu Tyr Gly
              580   585   590

Pro Asp Thr Pro Ile Ile Ser Pro Pro Asp Ser Ser Tyr Leu Ser Gly
              595   600   605

Ala Asn Leu Asn Leu Ser Cys His Ser Ala Ser Asn Pro Ser Pro Gln
        610   615   620

Tyr Ser Trp Arg Ile Asn Gly Ile Pro Gln Gln His Thr Gln Val Leu
625   630   635   640

Phe Ile Ala Lys Ile Thr Pro Asn Asn Asn Gly Thr Tyr Ala Cys Phe
                  645   650   655

Val Ser Asn Leu Ala Thr Gly Arg Asn Asn Ser Ile Val Lys Ser Ile
              660   665   670

Thr Val Ser Asp Ser Cys Phe Ala Ser Ser Leu Lys His Leu Gln Gln
              675   680   685

Leu Gln Ser Lys Ile Ala Ser Leu Pro Arg Ile Phe Thr Glu Lys Thr
        690   695   700

Leu Thr Arg Asp Arg Asp His Pro Ser Gln His Arg Glu Thr Pro Ser
705   710   715   720

Leu Leu Lys Ile Gln Lys

725

<210> 195
<211> 193
<212> PRT
<213> Homo sapien

<400> 195

Met Asp Ala Trp Ser Arg Arg Gly Pro Pro Thr His Thr Arg Gln Ser
1   5   10   15

Cys His Gly Glu Asn Ser Ser Val Ser Ile Leu Ala Pro Leu Val Ala
            20   25   30

Leu Ser Tyr Thr Leu Ala Arg Asp Thr Thr Val Lys Pro Gly Ala Lys
        35   40   45

Lys Asp Thr Lys Asp Ser Arg Pro Lys Leu Pro Gln Thr Leu Ser Arg
    50   55   60

Gly Trp Gly Asp Gln Leu Ile Trp Thr Gln Thr Tyr Glu Glu Ala Leu
65   70   75   80

Tyr Lys Ser Lys Thr Ser Asn Lys Pro Leu Met Ile Ile His His Leu
                85   90   95

Asp Glu Cys Pro His Ser Gln Ala Leu Lys Lys Val Phe Ala Glu Asn
            100   105   110

Lys Glu Ile Gln Lys Leu Ala Glu Gln Phe Val Leu Leu Asn Leu Val
        115   120   125

Tyr Glu Thr Thr Asp Lys His Leu Ser Pro Asp Gly Gln Tyr Val Pro
    130   135   140

Arg Ile Met Phe Val Asp Pro Ser Leu Thr Val Arg Ala Asp Ile Thr
145   150   155   160

Gly Arg Tyr Ser Asn Arg Leu Tyr Ala Tyr Glu Pro Ala Asp Thr Ala
                165   170   175

Leu Leu Leu Asp Asn Met Lys Lys Ala Leu Lys Leu Leu Lys Thr Glu
            180   185   190

Leu

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<210>   196
<211>   199
<212>   PRT
<213>   Homo sapien

<400>   196
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Cys Arg Ala Ala Gln Cys Asp Gly Cys Val Val Ala Ala Arg Cys Arg
1   5   10   15

Arg Leu Thr Gln Gly Arg Val Ala Met Glu Lys Ile Pro Val Ser Ala
            20   25   30

Phe Leu Leu Leu Val Ala Leu Ser Tyr Thr Leu Ala Arg Asp Thr Thr
        35   40   45

Val Lys Pro Gly Ala Lys Lys Asp Thr Lys Asp Ser Arg Pro Lys Leu
    50   55   60

Pro Gln Thr Leu Ser Arg Gly Trp Gly Asp Gln Leu Ile Trp Thr Gln
65   70   75   80

Thr Tyr Glu Glu Ala Leu Tyr Lys Ser Lys Thr Ser Asn Lys Pro Leu
            85   90   95

Met Ile Ile His His Leu Asp Glu Cys Pro His Ser Gln Ala Leu Lys
            100   105   110

Lys Val Phe Ala Glu Asn Lys Glu Ile Gln Lys Leu Ala Glu Gln Phe
        115   120   125

Val Leu Leu Asn Leu Val Tyr Glu Thr Thr Asp Lys His Leu Ser Pro
    130   135   140

Asp Gly Gln Tyr Val Pro Arg Ile Met Phe Val Asp Pro Ser Leu Thr
145   150   155   160

Val Arg Ala Asp Ile Thr Gly Arg Tyr Ser Asn Arg Leu Tyr Ala Tyr
            165   170   175

Glu Pro Ala Asp Thr Ala Leu Leu Leu Asp Asn Met Lys Lys Ala Leu
            180   185   190

Lys Leu Leu Lys Thr Glu Leu
            195

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<210>   197
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<211> 187
<212> PRT
<213> Homo sapien

<400> 197

Met Asp Arg Gly Arg Gly Arg Gly Gln Ser Cys His Gly Glu Asn Ser
1   5   10   15

Ser Val Ser Ile Leu Ala Pro Leu Val Ala Leu Ser Tyr Thr Leu Ala
            20   25   30

Arg Asp Thr Thr Val Lys Pro Gly Ala Lys Lys Asp Thr Lys Asp Ser
        35   40   45

Arg Pro Lys Leu Pro Gln Thr Leu Ser Arg Gly Trp Gly Asp Gln Leu
    50   55   60

Ile Trp Thr Gln Thr Tyr Glu Glu Ala Leu Tyr Lys Ser Lys Thr Ser
65   70   75   80

Asn Lys Pro Leu Met Ile Ile His His Leu Asp Glu Cys Pro His Ser
                85   90   95

Gln Ala Leu Lys Lys Val Phe Ala Glu Asn Lys Glu Ile Gln Lys Leu
            100   105   110

Ala Glu Gln Phe Val Leu Leu Asn Leu Val Tyr Glu Thr Thr Asp Lys
            115   120   125

His Leu Ser Pro Asp Gly Gln Tyr Val Pro Arg Ile Met Phe Val Asp
    130   135   140

Pro Ser Leu Thr Val Arg Ala Asp Ile Thr Gly Arg Tyr Ser Asn Arg
145   150   155   160

Leu Tyr Ala Tyr Glu Pro Ala Asp Thr Ala Leu Leu Leu Asp Asn Met
                165   170   175

Lys Lys Ala Leu Lys Leu Leu Lys Thr Glu Leu
            180   185

<210> 198
<211> 186
<212> PRT
<213> Homo sapien

<400> 198

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Trp Ile Val Val Ala Ala Glu Val Arg Val Ala Met Glu Lys Ile Pro
1               5               10              15

Val Ser Ala Phe Leu Leu Leu Val Ala Leu Ser Tyr Thr Leu Ala Arg
                20                  25                  30

Asp Thr Thr Val Lys Pro Gly Ala Lys Lys Asp Thr Lys Asp Ser Arg
        35                  40                  45

Pro Lys Leu Pro Gln Thr Leu Ser Arg Gly Trp Gly Asp Gln Leu Ile
    50                  55                  60

Trp Thr Gln Thr Tyr Glu Glu Ala Leu Tyr Lys Ser Lys Thr Ser Asn
65                  70                  75                  80

Lys Pro Leu Met Ile Ile His His Leu Asp Glu Cys Pro His Ser Gln
                85                  90                  95

Ala Leu Lys Lys Val Phe Ala Glu Asn Lys Glu Ile Gln Lys Leu Ala
            100                 105                 110

Glu Gln Phe Val Leu Leu Asn Leu Val Tyr Glu Thr Thr Asp Lys His
        115                 120                 125

Leu Ser Pro Asp Gly Gln Tyr Val Pro Arg Ile Met Phe Val Asp Pro
    130                 135                 140

Ser Leu Thr Val Arg Ala Asp Ile Thr Gly Arg Tyr Ser Asn Arg Leu
145                 150                 155                 160

Tyr Ala Tyr Glu Pro Ala Asp Thr Ala Leu Leu Leu Asp Asn Met Lys
                165                 170                 175

Lys Ala Leu Lys Leu Leu Lys Thr Glu Leu
                180                 185
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<400>  199

Ala Arg Thr Arg Glu Val Glu Ile Ala Val Ser Ala Asp Gly Asn Thr
1               5               10              15


Ala Arg Gln Ser Gly Asn Arg Ala Arg Leu His Leu Lys Lys Lys Arg
            20              25              30


Lys Glu Asp Ser Asp Leu Tyr Ser Gly Ile Gln Val Ser Asp Thr Thr
        35              40              45


Ala Leu Ser Glu Asn Phe Gln Asn Phe Asn Glu Leu Thr Asp Ser Phe
    50              55              60


Met Lys Ser Val His Gln Asp Gln Ala Glu Lys Ile Asn Asn Phe Thr
65              70              75              80


Gly Ser Ser Asn Gly Leu Tyr Glu Lys Val Leu Phe Ser Ser Ile Phe
            85              90              95


Tyr Leu Glu Ile Leu Leu Asp Ser Leu Ile Cys Leu Val Xaa Pro Asp
            100             105             110


Phe Ser Glu Thr Phe Phe Leu Phe Xaa Xaa Tyr Pro Gln Leu Thr Xaa
        115             120             125


Asn Leu Asp Lys Ile Tyr Phe Xaa
    130             135


<210>  200
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<213>  Homo sapien

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<400>  200

Tyr Val Leu Xaa Ser Gln Ile Ser Ala Lys Leu Phe Phe Xaa Leu Xaa
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        1                    5                    10                    15

        Ala Ile His Ser Leu Xaa Ala Ile Trp Ile Lys Tyr Thr Xaa Cys Glu
                        20                    25                    30

        Xaa Lys Ile Gly Asp Ile Tyr Xaa Phe Leu Leu Tyr Val Xaa Arg Ser
                  35                    40                    45

        Lys Thr Xaa Gly Lys Leu Phe Xaa Glu Tyr Leu Tyr Ser Tyr Gly Asn
             50                    55                    60

        Ile Ala Tyr Cys Thr Ser Ser Ile Lys Ile Cys Ser Leu Tyr Asp Arg
        65                    70                    75                    80

        Ile His Leu Lys Thr Leu Val Ile Leu Pro Arg Leu
                            85                    90
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<210>    201
<211>    82
<212>    PRT
<213>    Homo sapien

<400>    201

        Met Cys Phe Leu Lys Thr Val Val Val Cys Asn Ile Lys Thr Met Asn
        1                    5                    10                    15

        Leu Ile Ser Val Ser Thr Tyr Gly Phe His Glu Leu Ala Ser Leu Ser
                        20                    25                    30

        His Asp Leu Leu His Gly Phe Glu Val Ile Lys Gly Leu Asp Arg Gln
                  35                    40                    45

        Lys Gly Leu Glu Ile Phe Val Arg Leu Gln Leu Gln Ser Val Ser Asn
             50                    55                    60

        Leu Lys Ser Phe Leu His Val Val Lys Gln Gln Glu Leu Tyr Leu Gln
        65                    70                    75                    80

        Val Ser
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<210>    202
<211>    79
<212>    PRT
<213>    Homo sapien

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<400>  202

Xaa Thr Glu Gly Xaa Gly Asp Xaa Xaa Ser Leu Xaa Phe Ser Leu Gln
1               5                   10                  15


Gln Xaa Glu Ser Phe Leu His Val Val Xaa Gln Gln Ser Cys Ile Xaa
        20                  25                  30


Arg Phe Val Ser Ile Glu Thr Ile Arg Ile Ser Ser Ser Asp Ile Gly
        35                  40                  45


Ser Asn Cys Gln Arg Trp Val Asn Xaa Asp Ile Ile Leu Gly Thr Tyr
```

                50   55   60

        Trp Pro Ser Gly Glu Arg Cys Cys Gln Leu Phe His Lys Pro Asp
        65   70   75

        <210>   203
        <211>   49
        <212>   PRT
        <213>   Homo sapien

        <400>   203

        Met Glu Lys Ile Pro Val Ser Ala Phe Leu Leu Leu Val Ala Leu Ser
        1   5   10   15

        Tyr Thr Leu Ala Arg Asp Thr Thr Val Lys Pro Gly Ala Lys Lys Asp
                    20   25   30

        Thr Lys Asp Ser Arg Pro Lys Thr Ala Pro Asp Pro Leu Gln Arg Leu
                35   40   45

        Gly

        <210>   204
        <211>   140
        <212>   PRT
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<400>  204
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Gly Asn Pro Glu Leu Pro Trp Arg Lys Phe Gln Cys Gln His Ser Cys
1   5   10   15

Ser Leu Trp Pro Ser Pro Thr Leu Trp Pro Glu Ile Pro Gln Ser Asn
          20   25   30

Leu Glu Pro Lys Arg Thr Gln Arg Thr Leu Asp Pro Lys Leu Pro Gln
          35   40   45

Thr Leu Ser Arg Gly Trp Gly Asp Gln Leu Ile Trp Thr Gln Thr Tyr
     50   55   60

Glu Glu Ala Leu Tyr Lys Ser Lys Thr Ser Asn Lys Pro Leu Met Ile
65   70   75   80

Ile His His Leu Asp Glu Cys Pro His Ser Gln Ala Leu Glu Lys Val
               85   90   95

Phe Ala Glu Asn Lys Xaa Ile Xaa Xaa Leu Ala Glu Gln Xaa Val Leu
               100   105   110

Leu Asn Leu Val Tyr Glu Xaa Thr Asp Xaa Pro Phe Leu Leu Met Ala
          115   120   125

Xaa Met Ser Pro Gly Leu Cys Xaa Xaa Thr His Leu
     130   135   140

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<210>  205
<211>  74
<212>  PRT
<213>  Homo sapien

<400>  205
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261

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Met Asp Arg Ala Ala Pro Gly Arg Ser Ser Arg Arg Leu Thr Gln Gly
1               5                   10                  15


Arg Trp Val Arg Lys Ser Arg Val Ala Met Glu Lys Ile Pro Val Ser
            20                  25                  30


Ala Phe Leu Leu Leu Val Ala Leu Ser Tyr Thr Leu Ala Arg Asp Thr
            35                  40                  45


Thr Val Lys Pro Gly Ala Lys Lys Asp Thr Lys Asp Ser Arg Pro Lys
        50                  55                  60


Thr Ala Pro Asp Pro Leu Gln Arg Leu Gly
65                  70
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<210>   206
<211>   140
<212>   PRT
<213>   Homo sapien

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<400>  206

Gly Asn Pro Glu Leu Pro Trp Arg Lys Phe Gln Cys Gln His Ser Cys
1               5                   10                  15


Ser Leu Trp Pro Ser Pro Thr Leu Trp Pro Glu Ile Pro Gln Ser Asn
            20                  25                  30


Leu Glu Pro Lys Arg Thr Gln Arg Thr Leu Asp Pro Lys Leu Pro Gln
        35                  40                  45


Thr Leu Ser Arg Gly Trp Gly Asp Gln Leu Ile Trp Thr Gln Thr Tyr
    50                  55                  60


Glu Glu Ala Leu Tyr Lys Ser Lys Thr Ser Asn Lys Pro Leu Met Ile
65                  70                  75                  80


Ile His His Leu Asp Glu Cys Pro His Ser Gln Ala Leu Glu Lys Val
                85                  90                  95


Phe Ala Glu Asn Lys Xaa Ile Xaa Xaa Leu Ala Glu Gln Xaa Val Leu
            100                 105                 110


Leu Asn Leu Val Tyr Glu Xaa Thr Asp Xaa Pro Phe Leu Leu Met Ala
            115                 120                 125


Xaa Met Ser Pro Gly Leu Cys Xaa Xaa Thr His Leu
    130                 135                 140


<210>  207
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<212>  PRT
<213>  Homo sapien

<400>  207

Met Asp Ser Val Val Ala Ala Glu Ala Ser Arg Arg Leu Thr Gln Gly
1               5                   10                  15


Arg Trp Val Arg Lys Ser Arg Val Ala Met Glu Lys Ile Pro Val Ser
            20                  25                  30


Ala Phe Leu Leu Leu Val Ala Leu Ser Tyr Thr Leu Ala Arg Asp Thr
        35                  40                  45
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Thr Val Lys Pro Gly Ala Lys Lys Asp Thr Lys Asp Ser Arg Pro Lys
    50   55   60

Thr Ala Pro Asp Pro Leu Gln Arg Leu Gly
65   70

<210>   208
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<212>   PRT
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<400>   208

Gly Asn Pro Glu Leu Pro Trp Arg Lys Phe Gln Cys Gln His Ser Cys
1   5   10   15

Ser Leu Trp Pro Ser Pro Thr Leu Trp Pro Glu Ile Pro Gln Ser Asn
        20   25   30

Leu Glu Pro Lys Arg Thr Gln Arg Thr Leu Asp Pro Lys Leu Pro Gln
        35   40   45

Thr Leu Ser Arg Gly Trp Gly Asp Gln Leu Ile Trp Thr Gln Thr Tyr
        50   55   60

Glu Glu Ala Leu Tyr Lys Ser Lys Thr Ser Asn Lys Pro Leu Met Ile
65   70   75   80

Ile His His Leu Asp Glu Cys Pro His Ser Gln Ala Leu Glu Lys Val
            85   90   95

Phe Ala Glu Asn Lys Xaa Ile Xaa Xaa Leu Ala Glu Gln Xaa Val Leu
            100   105   110

Leu Asn Leu Val Tyr Glu Xaa Thr Asp Xaa Pro Phe Leu Leu Met Ala
        115   120   125

Xaa Met Ser Pro Gly Leu Cys Xaa Xaa Thr His Leu
    130   135   140

<210> 209
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<212> PRT
<213> Homo sapien

<400> 209

Met Asp Ser Val Val Ala Ala Glu Val Leu Tyr Lys Ser Lys Thr Ser
1   5   10   15

Asn Lys Pro Leu Met Ile Ile His His Leu Asp Glu Cys Pro His Ser
        20   25   30

Gln Ala Leu Glu Lys Val Phe Ala Glu Asn Lys Glu Ile His Thr His
        35   40   45

Cys Ala Glu Gln Leu Val Pro Ala Ser His Leu Val Tyr Glu Thr Ile
        50   55   60

Val Thr Thr His Leu Ser Pro Asp Gly Gln Tyr Val Pro Arg Ile Met
65   70   75   80

Phe Val Asp Pro Leu Ser Asp Asn Leu Ser Arg Tyr His Leu Glu Asp
                85   90   95

Ile Pro Ile Arg Leu Tyr Ala Tyr Glu Ser Leu Gln Ile Gln Leu Cys
                100   105   110

Cys Leu Thr Asn Met Lys Lys Ala Phe Lys Leu Leu Lys Thr Glu Leu
            115   120   125

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Ser Val Met Asp Ser Val Val Ala Ala Glu Val Leu Tyr Lys Ser Lys
1               5                   10                  15


Thr Ser Asn Lys Pro Leu Met Ile Ile His His Leu Asp Glu Cys Pro
            20                  25                  30


His Ser Gln Ala Leu Glu Lys Val Phe Ala Glu Asn Lys Xaa Ile Xaa
        35                  40                  45


Xaa Leu Ala Glu Gln Xaa Val Leu Leu Asn Leu Val Tyr Glu Xaa Thr
        50              55                  60


Asp Xaa Pro Phe Leu Leu Met Ala Xaa Met Ser Pro Gly Leu Cys Xaa
65              70                  75                  80


Xaa Thr His Leu
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<210>  211
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<212>  PRT
<213>  Homo sapien

<400>  211
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Met Asp Trp Ser Arg Pro Arg Tyr Pro Asp Ala Thr Asp Glu Asp Ile
1               5                   10                  15


Thr Ser His Met Glu Ser Glu Glu Leu Asn Gly Ala Tyr Lys Ala Ile
            20                  25                  30


Pro Val Ala Gln Asp Leu Asn Ala Pro Ser Asp Trp Asp Ser Arg Gly
        35                  40                  45


Lys Asp Ser Tyr Glu Thr Ser Gln Leu Asp Asp Gln Ser Ala Glu Thr
    50              55                  60


His Ser His Lys Gln Ser Arg Leu Tyr Lys Arg Lys Ala Asn Asp Glu
65              70                  75                  80


Ser Asn Glu His Ser Asp Val Ile Asp Ser Gln Glu Leu Ser Lys Val
            85                  90                  95


Ser Arg Glu Phe His Ser His Glu Phe His Ser His Glu Asp Met Leu
            100                 105                 110


Val Val Asp Pro Gln Lys
            115
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<210>  212
<211>  117
<212>  PRT
<213>  Homo sapien

<400>  212

Trp Met Ser Arg Pro Arg Tyr Pro Asp Ala Thr Asp Glu Asp Ile Thr
1               5                   10                  15

Ser His Met Glu Ser Glu Glu Leu Asn Gly Ala Tyr Lys Ala Ile Pro
            20                  25                  30

Val Ala Gln Asp Leu Asn Ala Pro Ser Asp Trp Asp Ser Arg Gly Lys
        35                  40                  45

Asp Ser Tyr Glu Thr Ser Gln Leu Asp Asp Gln Ser Ala Glu Thr His
    50                  55                  60

Ser His Lys Gln Ser Arg Leu Tyr Lys Arg Lys Ala Asn Asp Glu Ser
65                  70                  75                  80

Asn Glu His Ser Asp Val Ile Asp Ser Gln Glu Leu Ser Lys Val Ser
                85                  90                  95

Arg Glu Phe His Ser His Glu Phe His Ser His Glu Asp Met Leu Val
            100                 105                 110

Val Asp Pro Gln Lys
            115


<210>  213
<211>  75
<212>  PRT
<213>  Homo sapien

<400>  213

Met His Ile Gln Lys Ile Phe Val Ile Ile Thr Phe Ser Lys His Ile
1               5                   10                  15

Val Glu Gln Met Val Ala Phe Ile Gly Leu Glu Asp Asn Gly Ala Leu
            20                  25                  30

Gln Pro Pro Pro Pro Ser Ala Val Pro Gly Ile Gly Pro Ser Leu Gln
            35                  40                  45

Lys Pro Phe Gln Glu Tyr Leu Glu Ala Gln Arg Gln Lys Leu His His
```

```
              50                    55                    60

        Lys Ser Glu Met Gly Thr Pro Gln Val Arg Leu
        65                  70                    75
```

<210> 214
<211> 143
<212> PRT
<213> Homo sapien

<400> 214

```
Met Arg Ser His Thr Ala Pro Gln Pro Leu Ser Gly Thr Phe Leu Asp
1               5                   10                  15


Leu Leu Trp Cys Asn Pro Asn Trp Lys Ser Asn Asn Lys Asn Ala Tyr
            20                  25                  30


Pro Glu Asn Phe Cys Tyr Asn Asn Ile Gln Gln Ala His Ser Gly Ala
        35                  40                  45


Asn Gly Gly Phe His Trp Ala Gly Gly Gln Trp Arg Thr Ala Thr Ser
    50                  55                  60


Thr Ser Gln Cys Cys Pro Arg His Arg Ser Ile Ser Ala Glu Ala Ile
65                  70                  75                      80


Ser Gly Val Pro Gly Gly Ser Thr Ala Glu Ala Ser Pro Gln Lys Arg
                85                  90                  95


Asn Gly His Thr Thr Gly Lys Thr Leu Ile Arg Phe Leu Leu Pro Ser
                100                 105                 110


Gly Lys Phe Arg Ala Glu Ile Thr Phe Thr Ala Leu Thr His Ile Phe
        115                 120                 125


Arg Gln Ile Ser Glu Val Gly Leu Pro Val Phe Leu Asp Arg Ser
        130                 135                 140
```

<210> 215
<211> 113
<212> PRT
<213> Homo sapien

<400> 215

```
Gly Asp Ser Glu Asp Pro Arg Phe Asp Pro Asp Gly Pro Gly Ser Ser
1               5                   10                  15
```

Thr Cys Ala Leu Ala Arg Arg Arg Gln Leu Gly Pro Ser Gln Gly Arg
        20   25   30

Ser Thr Ser Arg Cys Pro Ser Trp Arg Val Leu Cys Arg Trp Ser Gln
        35   40   45

Leu Pro Ser Arg Leu Tyr Ile Leu Leu Arg Ser Gln Ser Trp Lys Met
    50   55   60

Ser Ile Ser Phe Ser Ser Val Arg Trp Ala Ser Gly Ala Ser Arg Pro
65   70   75   80

Arg Ser Trp Pro Gly Val Leu Asp Thr Leu Gly Leu Ala Thr Thr Leu
            85   90   95

Glu Pro Ile Glu Asn Gly Trp Arg Lys Arg Val Arg Gln Glu Ala Ala
            100   105   110

Tyr

<210> 216
<211> 210
<212> PRT
<213> Homo sapien

<400> 216

Met Ala Gln Val Pro Pro Gly Thr Pro Arg Arg Gly Leu Pro Arg His
1   5   10   15

Gln Gly Leu Gly His Ala Thr His Leu His Gln Ala Val Phe Cys Trp
            20   25   30

Val Ala Glu Gly Met Arg Ala Asp Thr Thr Cys Ser Pro Arg Val Ala
        35   40   45

Val Gly Thr Ala Ala Glu Gly Leu Leu Leu Arg Val His Met Trp Gly
    50   55   60

Lys Glu Met Leu Gln Ala Pro Arg Gly Arg Ala Arg Ala Ala Leu Arg
65   70   75   80

Arg Leu Ala Val Ala Thr Arg Thr Met Ala Gly Gly Cys Arg Ala Pro
            85   90   95

Ser Ser Ala Pro Thr Val Ser Leu Pro Glu Leu Arg Ser Leu Leu Ala
            100   105   110

Ser Gly Arg Ala Arg Leu Phe Asp Val Arg Ser Arg Glu Glu Ala Ala
        115   120   125

Ala Gly Thr Ile Pro Gly Ala Leu Asn Ile Pro Val Ser Glu Leu Glu
        130   135   140

Ser Ala Leu Gln Met Glu Pro Ala Ala Phe Gln Ala Leu Tyr Ser Ala
145   150   155   160

Glu Lys Pro Lys Leu Glu Asp Glu His Leu Val Phe Phe Cys Gln Met
                165   170   175

Gly Lys Arg Gly Leu Gln Ala Thr Gln Leu Ala Arg Ser Leu Gly Tyr
            180   185   190

Thr Gly Ala Arg Asn Tyr Ala Gly Ala Tyr Arg Glu Trp Leu Glu Lys
        195   200   205

Glu Ser
    210

<210> 217
<211> 173
<212> PRT
<213> Homo sapien

<400> 217

Gly Gln Thr Pro Arg Val Ala Leu Gly Trp Gln Trp Ala Leu Gln Gln
1   5   10   15

Arg Gly Cys Cys Ser Glu Ser Thr Cys Gly Gly Arg Glu Met Leu Gln
            20   25   30

Ala Pro Arg Gly Arg Ala Arg Ala Ala Leu Arg Arg Leu Ala Val Ala
        35   40   45

Thr Arg Thr Met Ala Gly Gly Cys Arg Ala Pro Ser Ser Ala Pro Thr
    50   55   60

Val Ser Leu Pro Glu Leu Arg Ser Leu Leu Ala Ser Gly Arg Ala Arg
65   70   75   80

Leu Phe Asp Val Arg Ser Arg Glu Glu Ala Ala Ala Gly Thr Ile Pro
                85   90   95

```
Gly Ala Leu Asn Ile Pro Val Ser Glu Leu Glu Ser Ala Leu Gln Met
            100             105             110

Glu Pro Ala Ala Phe Gln Ala Leu Tyr Ser Ala Glu Lys Pro Lys Leu
        115             120             125

Glu Asp Glu His Leu Val Phe Phe Cys Gln Met Gly Lys Arg Gly Leu
    130             135             140

Gln Ala Thr Gln Leu Ala Arg Ser Leu Gly Tyr Thr Gly Ala Arg Asn
145             150             155             160

Tyr Ala Gly Ala Tyr Arg Glu Trp Leu Glu Lys Glu Ser
            165             170
```

```
<210>   218
<211>   189
<212>   PRT
<213>   Homo sapien

<400>   218
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```
Met Ala Gln Val Pro Pro Gly Thr Pro Arg Arg Gly Leu Pro Arg His
1               5               10              15

Gln Gly Leu Gly His Ala Thr His Leu His Gln Ala Val Phe Cys Trp
            20              25              30

Val Ala Glu Gly Met Arg Ala Asp Thr Thr Cys Ser Pro Arg Val Ala
            35              40              45

Val Gly Thr Ala Ala Glu Gly Leu Leu Leu Arg Val His Met Trp Gly
    50              55              60

Lys Glu Met Leu Gln Ala Pro Arg Gly Arg Ala Arg Ala Ala Leu Arg
65              70              75              80

Arg Leu Ala Val Ala Thr Arg Thr Met Ala Gly Ala Gly Arg Ala Arg
            85              90              95

Leu Phe Asp Val Arg Ser Arg Glu Glu Ala Ala Ala Gly Thr Ile Pro
            100             105             110

Gly Ala Leu Asn Ile Pro Val Ser Glu Leu Glu Ser Ala Leu Gln Met
            115             120             125

Glu Pro Ala Ala Phe Gln Ala Leu Tyr Ser Ala Glu Lys Pro Lys Leu
            130             135             140
```

Glu Asp Glu His Leu Val Phe Phe Cys Gln Met Gly Lys Arg Gly Leu
145   150   155   160

Gln Ala Thr Gln Leu Ala Arg Ser Leu Gly Tyr Thr Gly Ala Arg Asn
                165   170   175

Tyr Ala Gly Ala Tyr Arg Glu Trp Leu Glu Lys Glu Ser
            180   185

<210> 219
<211> 152
<212> PRT
<213> Homo sapien

<400> 219

Gly Gln Thr Pro Arg Val Ala Leu Gly Trp Gln Trp Ala Leu Gln Gln
1   5   10   15

Arg Gly Cys Cys Ser Glu Ser Thr Cys Gly Gly Arg Glu Met Leu Gln
            20   25   30

Ala Pro Arg Gly Arg Ala Arg Ala Ala Leu Arg Arg Leu Ala Val Ala
        35   40   45

Thr Arg Thr Met Ala Gly Ala Gly Arg Ala Arg Leu Phe Asp Val Arg
    50   55   60

Ser Arg Glu Glu Ala Ala Ala Gly Thr Ile Pro Gly Ala Leu Asn Ile
65   70   75   80

Pro Val Ser Glu Leu Glu Ser Ala Leu Gln Met Glu Pro Ala Ala Phe
            85   90   95

Gln Ala Leu Tyr Ser Ala Glu Lys Pro Lys Leu Glu Asp Glu His Leu
            100   105   110

Val Phe Phe Cys Gln Met Gly Lys Arg Gly Leu Gln Ala Thr Gln Leu
        115   120   125

Ala Arg Ser Leu Gly Tyr Thr Gly Ala Arg Asn Tyr Ala Gly Ala Tyr
    130   135   140

Arg Glu Trp Leu Glu Lys Glu Ser
145   150

```
<210>  220
<211>  105
<212>  PRT
<213>  Homo sapien

<400>  220

Met Leu Gln Ala Pro Arg Gly Pro Gly Arg Ala Arg Leu Phe Asp Val
1               5                  10                 15

Arg Ser Arg Glu Glu Ala Ala Ala Gly Thr Ile Pro Gly Ala Leu Asn
                20                 25                 30

Ile Pro Val Ser Glu Leu Glu Ser Ala Leu Gln Met Glu Pro Ala Ala
        35                 40                 45

Phe Gln Ala Leu Tyr Ser Ala Glu Lys Pro Lys Leu Glu Asp Glu His
    50                 55                 60

Leu Val Phe Phe Cys Gln Met Gly Lys Arg Gly Leu Gln Ala Thr Gln
65                 70                 75                 80

Leu Ala Arg Ser Leu Gly Tyr Thr Gly Ala Arg Asn Tyr Ala Gly Ala
            85                 90                 95

Tyr Arg Glu Trp Leu Glu Lys Glu Ser
            100                105


<210>  221
<211>  112
<212>  PRT
<213>  Homo sapien

<400>  221

Arg Cys Cys Arg Arg Arg Glu Asp Pro Asp Gly Pro Gly Ser Ser Thr
1               5                  10                 15

Cys Ala Leu Ala Arg Arg Arg Gln Leu Gly Pro Ser Gln Gly Arg Ser
                20                 25                 30

Thr Ser Arg Cys Pro Ser Trp Arg Val Leu Cys Arg Trp Ser Gln Leu
            35                 40                 45

Pro Ser Arg Leu Tyr Ile Leu Leu Arg Ser Gln Ser Trp Lys Met Ser
    50                 55                 60

Ile Ser Phe Ser Ser Val Arg Trp Ala Ser Gly Ala Ser Arg Pro Arg
65                 70                 75                 80
```

Ser Trp Pro Gly Val Leu Asp Thr Leu Gly Leu Ala Thr Thr Leu Glu
             85   90   95

Pro Ile Glu Asn Gly Trp Arg Lys Arg Val Arg Gln Glu Ala Ala Tyr
         100   105   110

<210> 222
<211> 131
<212> PRT
<213> Homo sapien

<400> 222

Met Ala Ala Val Thr Pro Arg Pro Pro Leu Pro Glu Gly Cys Arg Ala
1   5   10   15

Pro Ser Ser Ala Pro Thr Val Ser Leu Pro Glu Leu Arg Ser Leu Leu
         20   25   30

Ala Ser Gly Arg Ala Arg Leu Phe Asp Val Arg Ser Arg Glu Glu Ala
         35   40   45

Ala Ala Gly Thr Ile Pro Gly Ala Leu Asn Ile Pro Val Ser Glu Leu
     50   55   60

Glu Ser Ala Leu Gln Met Glu Pro Ala Ala Phe Gln Ala Leu Tyr Ser
65   70   75   80

Ala Glu Lys Pro Lys Leu Glu Asp Glu His Leu Val Phe Phe Cys Gln
                 85   90   95

Met Gly Lys Arg Gly Leu Gln Ala Thr Gln Leu Ala Arg Ser Leu Gly
             100   105   110

Tyr Thr Gly Ala Arg Asn Tyr Ala Gly Ala Tyr Arg Glu Trp Leu Glu
         115   120   125

Lys Glu Ser
     130

<210> 223
<211> 108
<212> PRT
<213> Homo sapien

<400> 223

Met Val Ile Ile Cys Cys Leu Gly Ala Pro Arg Thr Gln Pro Phe Gln
1   5   10   15

Ala Gln Leu Pro Asn Leu Ser Ala Lys Leu Leu Ala Phe Pro Ser Thr
        20   25   30

Leu Ser Thr Pro Pro Val Ser Glu Leu Glu Ser Ala Leu Gln Met Glu
        35   40   45

Pro Ala Ala Phe Gln Ala Leu Tyr Ser Ala Glu Lys Pro Lys Leu Glu
    50   55   60

Asp Glu His Leu Val Phe Phe Cys Gln Met Gly Lys Arg Gly Leu Gln
65   70   75   80

Ala Thr Gln Leu Ala Arg Ser Leu Gly Tyr Thr Gly Ala Arg Asn Tyr
            85   90   95

Ala Gly Ala Tyr Arg Glu Trp Leu Glu Lys Glu Ser
            100   105

<210>   224
<211>   132
<212>   PRT
<213>   Homo sapien

<400>   224

Gly Lys Ala Leu Cys His Pro Gln Ile Ala Met Ala Gln Val Pro Pro
1   5   10   15

Gly Thr Pro Arg Arg Gly Leu Pro Arg His Gln Gly Leu Gly His Ala
        20   25   30

Thr His Leu His Gln Ala Val Phe Cys Trp Val Ala Glu Gly Met Arg
        35   40   45

Ala Asp Thr Thr Cys Ser Pro Arg Val Ala Val Gly Thr Ala Ala Glu
    50   55   60

Gly Leu Leu Leu Arg Val His Met Trp Gly Lys Gly Asp Val Ala Gly
65   70   75   80

Ala Glu Arg Ala Gly Gln Gly Arg Thr Pro Glu Thr Arg Gly Cys Tyr
            85   90   95

Ala His His Gly Trp Arg Tyr Leu Arg Gly Ile Pro Gly Ala Ala Val
            100   105   110

Leu Leu Val Leu Trp Val Glu Ala Trp Gln Gly Val Gly Trp Arg Thr
        115   120   125

Lys Gly Arg Gly
    130

<210> 225
<211> 162
<212> PRT
<213> Homo sapien

<400> 225

Met Ala Gln Val Pro Pro Gly Thr Pro Arg Arg Gly Leu Pro Arg His
1   5   10   15

Gln Gly Leu Gly His Ala Thr His Leu His Gln Ala Val Phe Cys Trp
            20   25   30

Val Ala Glu Gly Met Arg Ala Asp Thr Thr Cys Ser Pro Arg Val Ala
        35   40   45

Val Gly Thr Ala Ala Glu Gly Leu Leu Leu Arg Val His Met Trp Gly
    50   55   60

Lys Glu Met Leu Gln Ala Pro Arg Gly Arg Ala Arg Ala Ala Leu Arg
65   70   75   80

Arg Leu Ala Val Ala Thr Arg Thr Met Ala Gly Val Ser Glu Leu Glu
            85   90   95

Ser Ala Leu Gln Met Glu Pro Ala Ala Phe Gln Ala Leu Tyr Ser Ala
            100   105   110

Glu Lys Pro Lys Leu Glu Asp Glu His Leu Val Phe Phe Cys Gln Met
        115   120   125

Gly Lys Arg Gly Leu Gln Ala Thr Gln Leu Ala Arg Ser Leu Gly Tyr
        130   135   140

Thr Gly Ala Arg Asn Tyr Ala Gly Ala Tyr Arg Glu Trp Leu Glu Lys
145   150   155   160

Glu Ser

<210> 226
<211> 125

<212> PRT
<213> Homo sapien

<400> 226

Gly Gln Thr Pro Arg Val Ala Leu Gly Trp Gln Trp Ala Leu Gln Gln
1   5   10   15

Arg Gly Cys Cys Ser Glu Ser Thr Cys Gly Gly Arg Glu Met Leu Gln
                20   25   30

Ala Pro Arg Gly Arg Ala Arg Ala Ala Leu Arg Arg Leu Ala Val Ala
        35   40   45

Thr Arg Thr Met Ala Gly Val Ser Glu Leu Glu Ser Ala Leu Gln Met
    50   55   60

Glu Pro Ala Ala Phe Gln Ala Leu Tyr Ser Ala Glu Lys Pro Lys Leu
65   70   75   80

Glu Asp Glu His Leu Val Phe Phe Cys Gln Met Gly Lys Arg Gly Leu
                85   90   95

Gln Ala Thr Gln Leu Ala Arg Ser Leu Gly Tyr Thr Gly Ala Arg Asn
                100   105   110

Tyr Ala Gly Ala Tyr Arg Glu Trp Leu Glu Lys Glu Ser
        115   120   125

<210> 227
<211> 1815
<212> PRT
<213> Homo sapien

<400> 227

Met Asn Ser Leu Ile Tyr Asn Val Ser Asn Tyr Gln Ser Phe Ile Val
1   5   10   15

His Pro Ser Ser Thr Ser Ala Ser Phe Glu Gly Glu Cys Glu Val Arg
                20   25   30

Gln Asp Pro Arg Ser Pro Ser Arg Phe Leu Val Phe Phe Tyr Pro Glu
        35   40   45

Asp Val Arg Gln Lys Val Leu Glu Arg Lys Asn His Glu Leu Val Trp
    50   55   60

Gln Gly Lys Gly Thr Phe Lys Leu Thr Val Gln Leu Pro Ala Thr Pro

```
              65                    70                    75                    80
Asp Glu Ile Asp His Val Phe Glu Glu Glu Leu Leu Thr Lys Glu Ser
                85                    90                    95

Lys Thr Lys Glu Asp Val Lys Glu Pro Asp Val Ser Glu Glu Leu Asp
                100                   105                   110

Thr Lys Leu Pro Leu Asp Gly Gly Leu Asp Lys Met Glu Asp Ile Pro
                115                   120                   125

Glu Glu Cys Glu Asn Ile Ser Ser Leu Val Ala Phe Glu Asn Leu Lys
        130                   135                   140

Ala Asn Val Thr Asp Ile Met Leu Ile Leu Leu Val Glu Asn Ile Ser
145                   150                   155                   160

Gly Leu Ser Asn Asp Asp Phe Gln Val Glu Ile Ile Arg Asp Phe Asp
                165                   170                   175

Val Ala Val Val Thr Phe Gln Lys His Ile Asp Thr Ile Arg Phe Val
                180                   185                   190

Asp Asp Cys Thr Lys His His Ser Ile Lys Gln Leu Gln Leu Ser Pro
        195                   200                   205

Arg Leu Leu Glu Val Thr Asn Thr Ile Arg Val Glu Asn Leu Pro Pro
210                   215                   220

Gly Ala Asp Asp Tyr Ser Leu Lys Leu Phe Phe Glu Asn Pro Tyr Asn
225                   230                   235                   240

Gly Gly Gly Arg Val Ala Asn Val Glu Tyr Phe Pro Glu Glu Ser Ser
                245                   250                   255

Ala Leu Ile Glu Phe Phe Asp Arg Lys Val Leu Asp Thr Ile Met Ala
                260                   265                   270

Thr Lys Leu Asp Phe Asn Lys Met Pro Leu Ser Val Phe Pro Tyr Tyr
                275                   280                   285

Ala Ser Leu Gly Thr Ala Leu Tyr Gly Lys Glu Lys Pro Leu Ile Lys
        290                   295                   300

Leu Pro Ala Pro Phe Glu Glu Ser Leu Asp Leu Pro Leu Trp Lys Phe
305                   310                   315                   320
```

```
Leu Gln Lys Lys Asn His Leu Ile Glu Glu Ile Asn Asp Glu Met Arg
            325                     330               335

Arg Cys His Cys Glu Leu Thr Trp Ser Gln Leu Ser Gly Lys Val Thr
            340                 345                   350

Ile Arg Pro Ala Ala Thr Leu Val Asn Glu Gly Arg Pro Arg Ile Lys
    355                     360                   365

Thr Trp Gln Ala Asp Thr Ser Thr Thr Leu Ser Ser Ile Arg Ser Lys
    370                 375                   380

Tyr Lys Val Asn Pro Ile Lys Val Asp Pro Thr Met Trp Asp Thr Ile
385                 390                 395                   400

Lys Asn Asp Val Lys Asp Asp Arg Ile Leu Ile Glu Phe Asp Thr Leu
                405                 410                   415

Lys Glu Met Val Ile Leu Ala Gly Lys Ser Glu Asp Val Gln Ser Ile
            420                 425                   430

Glu Val Gln Val Arg Glu Leu Ile Glu Ser Thr Thr Gln Lys Ile Lys
            435                 440                   445

Arg Glu Glu Gln Ser Leu Lys Glu Lys Met Ile Ile Ser Pro Gly Arg
    450                 455                   460

Tyr Phe Leu Leu Cys His Ser Ser Leu Leu Asp His Leu Leu Thr Glu
465                 470                 475                   480

Cys Pro Glu Ile Glu Ile Cys Tyr Asp Arg Val Thr Gln His Leu Cys
                485                 490                   495

Leu Lys Gly Pro Ser Ala Asp Val Tyr Lys Ala Lys Cys Glu Ile Gln
            500                 505                   510

Glu Lys Val Tyr Thr Met Ala Gln Lys Asn Ile Gln Val Ser Pro Glu
            515                 520                   525

Ile Phe Gln Phe Leu Gln Gln Val Asn Trp Lys Glu Phe Ser Lys Cys
    530                 535                   540

Leu Phe Ile Ala Gln Lys Ile Leu Ala Leu Tyr Glu Leu Glu Gly Thr
545                 550                 555                   560
```

Thr Val Leu Leu Thr Ser Cys Ser Ser Glu Ala Leu Leu Glu Ala Glu
              565   570   575

Lys Gln Met Leu Ser Ala Leu Asn Tyr Lys Arg Ile Glu Val Glu Asn
          580   585   590

Lys Glu Val Leu His Gly Lys Lys Trp Lys Gly Leu Thr His Asn Leu
      595   600   605

Leu Lys Lys Gln Asn Ser Ser Pro Asn Thr Val Ile Ile Asn Glu Leu
  610   615   620

Thr Ser Glu Thr Thr Ala Glu Val Ile Ile Thr Gly Cys Val Lys Glu
625   630   635   640

Val Asn Glu Thr Tyr Lys Leu Leu Phe Asn Phe Val Glu Gln Asn Met
              645   650   655

Lys Ile Glu Arg Leu Val Glu Val Lys Pro Ser Leu Val Ile Asp Tyr
              660   665   670

Leu Lys Thr Glu Lys Lys Leu Phe Trp Pro Lys Ile Lys Lys Val Asn
          675   680   685

Val Gln Val Ser Phe Asn Pro Glu Asn Lys Gln Lys Gly Ile Leu Leu
      690   695   700

Thr Gly Ser Lys Thr Glu Val Leu Lys Ala Val Asp Ile Val Lys Gln
705   710   715   720

Val Trp Asp Ser Val Cys Val Lys Ser Val His Thr Asp Lys Pro Gly
              725   730   735

Ala Lys Gln Phe Phe Gln Asp Lys Ala Arg Phe Tyr Gln Ser Glu Ile
          740   745   750

Lys Arg Leu Phe Gly Cys Tyr Ile Glu Leu Gln Glu Asn Glu Val Met
          755   760   765

Lys Glu Gly Gly Ser Pro Ala Gly Gln Lys Cys Phe Ser Arg Thr Val
      770   775   780

Leu Ala Pro Gly Val Val Leu Ile Val Gln Gln Gly Asp Leu Ala Arg
785   790   795   800

Leu Pro Val Asp Val Val Val Asn Ala Ser Asn Glu Asp Leu Lys His
            805   810   815

Tyr Gly Gly Leu Ala Ala Ala Leu Ser Lys Ala Ala Gly Pro Glu Leu
            820   825   830

Gln Ala Asp Cys Asp Gln Ile Val Lys Arg Glu Gly Arg Leu Leu Pro
        835   840   845

Gly Asn Ala Thr Ile Ser Lys Ala Gly Lys Leu Pro Tyr His His Val
    850   855   860

Ile His Ala Val Gly Pro Arg Trp Ser Gly Tyr Glu Ala Pro Arg Cys
865   870   875   880

Val Tyr Leu Leu Arg Arg Ala Val Gln Leu Ser Leu Cys Leu Ala Glu
            885   890   895

Lys Tyr Lys Tyr Arg Ser Ile Ala Ile Pro Ala Ile Ser Ser Gly Val
        900   905   910

Phe Gly Phe Pro Leu Gly Arg Cys Val Glu Thr Ile Val Ser Ala Ile
        915   920   925

Lys Glu Asn Phe Gln Phe Lys Lys Asp Gly His Cys Leu Lys Glu Ile
    930   935   940

Tyr Leu Val Asp Val Ser Glu Lys Thr Val Glu Ala Phe Ala Glu Ala
945   950   955   960

Val Lys Thr Val Phe Lys Ala Thr Leu Pro Asp Thr Ala Ala Pro Pro
            965   970   975

Gly Leu Pro Pro Ala Ala Ala Gly Pro Gly Lys Thr Ser Trp Glu Lys
        980   985   990

Gly Ser Leu Val Ser Pro Gly Gly Leu Gln Met Leu Leu Val Lys Glu
        995   1000   1005

Gly Val Gln Asn Ala Lys Thr Asp Val Val Val Asn Ser Val Pro
    1010   1015   1020

Leu Asp Leu Val Leu Ser Arg Gly Pro Leu Ser Lys Ser Leu Leu
    1025   1030   1035

Glu Lys Ala Gly Pro Glu Leu Gln Glu Glu Leu Asp Thr Val Gly

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        1040                    1045                    1050
```

Gln Gly Val Ala Val Ser Met Gly Thr Val Leu Lys Thr Ser Ser
    1055   1060   1065

Trp Asn Leu Asp Cys Arg Tyr Val Leu His Val Val Ala Pro Glu
    1070   1075   1080

Trp Arg Asn Gly Ser Thr Ser Ser Leu Lys Ile Met Glu Asp Ile
    1085   1090   1095

Ile Arg Glu Cys Met Glu Ile Thr Glu Ser Leu Ser Leu Lys Ser
    1100   1105   1110

Ile Ala Phe Pro Ala Ile Gly Thr Gly Asn Leu Gly Phe Pro Lys
    1115   1120   1125

Asn Ile Phe Ala Glu Leu Ile Ile Ser Glu Val Phe Lys Phe Ser
    1130   1135   1140

Ser Lys Asn Gln Leu Lys Thr Leu Gln Glu Val His Phe Leu Leu
    1145   1150   1155

His Pro Ser Asp His Glu Asn Ile Gln Ala Phe Ser Asp Glu Phe
    1160   1165   1170

Ala Arg Arg Ala Asn Gly Asn Leu Val Ser Asp Lys Ile Pro Lys
    1175   1180   1185

Ala Lys Asp Thr Gln Gly Phe Tyr Gly Thr Val Ser Ser Pro Asp
    1190   1195   1200

Ser Gly Val Tyr Glu Met Lys Ile Gly Ser Ile Ile Phe Gln Val
    1205   1210   1215

Ala Ser Gly Asp Ile Thr Lys Glu Glu Ala Asp Val Ile Val Asn
    1220   1225   1230

Ser Thr Ser Asn Ser Phe Asn Leu Lys Ala Gly Val Ser Lys Ala
    1235   1240   1245

Ile Leu Glu Cys Ala Gly Gln Asn Val Glu Arg Glu Cys Ser Gln
    1250   1255   1260

Gln Ala Gln Gln Arg Lys Asn Asp Tyr Ile Ile Thr Gly Gly Gly
    1265   1270   1275

Phe Leu Arg Cys Lys Asn Ile Ile His Val Ile Gly Gly Asn Asp
    1280   1285   1290

Val Lys Ser Ser Val Ser Ser Val Leu Gln Glu Cys Glu Lys Lys
    1295   1300   1305

Asn Tyr Ser Ser Ile Cys Leu Pro Ala Ile Gly Thr Gly Asn Ala
    1310   1315   1320

Lys Gln His Pro Asp Lys Val Ala Glu Ala Ile Ile Asp Ala Ile
    1325   1330   1335

Glu Asp Phe Val Gln Lys Gly Ser Ala Gln Ser Val Lys Lys Val
    1340   1345   1350

Lys Val Val Ile Phe Leu Pro Gln Val Leu Asp Val Phe Tyr Ala
    1355   1360   1365

Asn Met Lys Lys Arg Glu Gly Thr Gln Leu Ser Ser Gln Gln Ser
    1370   1375   1380

Val Met Ser Lys Leu Ala Cys Glu Phe Phe Val Phe Met Lys Cys
    1385   1390   1395

Met Phe Ile Thr Leu Met Ser His Val Lys Tyr Leu Ile Phe Leu
    1400   1405   1410

Phe Phe Leu Ala Phe Leu Gly Phe Ser Lys Gln Ser Pro Gln Lys
    1415   1420   1425

Lys Asn His Leu Val Leu Glu Lys Lys Thr Glu Ser Ala Thr Phe
    1430   1435   1440

Arg Val Cys Gly Glu Asn Val Thr Cys Val Glu Tyr Ala Ile Ser
    1445   1450   1455

Trp Leu Gln Asp Leu Ile Glu Lys Glu Gln Cys Pro Tyr Thr Ser
    1460   1465   1470

Glu Asp Glu Cys Ile Lys Asp Phe Asp Glu Lys Glu Tyr Gln Glu
    1475   1480   1485

Leu Asn Glu Leu Gln Lys Lys Leu Asn Ile Asn Ile Ser Leu Asp
    1490   1495   1500

His Lys Arg Pro Leu Ile Lys Val Leu Gly Ile Ser Arg Asp Val
1505   1510   1515

Met Gln Ala Arg Asp Glu Ile Glu Ala Met Ile Lys Arg Val Arg
1520   1525   1530

Leu Ala Lys Glu Gln Glu Ser Arg Ala Asp Cys Ile Ser Glu Phe
1535   1540   1545

Ile Glu Trp Gln Tyr Asn Asp Asn Asn Thr Ser His Cys Phe Asn
1550   1555   1560

Lys Met Thr Asn Leu Lys Leu Glu Asp Ala Arg Arg Glu Lys Lys
1565   1570   1575

Lys Thr Val Asp Val Lys Ile Asn His Arg His Tyr Thr Val Asn
1580   1585   1590

Leu Asn Thr Tyr Thr Ala Thr Asp Thr Lys Gly His Ser Leu Ser
1595   1600   1605

Val Gln Arg Leu Thr Lys Ser Lys Val Asp Ile Pro Ala His Trp
1610   1615   1620

Ser Asp Met Lys Gln Gln Asn Phe Cys Val Val Glu Leu Leu Pro
1625   1630   1635

Ser Asp Pro Glu Tyr Asn Thr Val Ala Ser Lys Phe Asn Gln Thr
1640   1645   1650

Cys Ser His Phe Arg Ile Glu Lys Ile Glu Arg Ile Gln Asn Pro
1655   1660   1665

Asp Leu Trp Asn Ser Tyr Gln Ala Lys Lys Lys Thr Met Asp Ala
1670   1675   1680

Lys Asn Gly Gln Thr Met Asn Glu Lys Gln Leu Phe His Gly Thr
1685   1690   1695

Asp Ala Gly Ser Val Pro His Val Asn Arg Asn Gly Phe Asn Arg
1700   1705   1710

Ser Tyr Ala Gly Lys Asn Ala Val Ala Tyr Gly Lys Gly Thr Tyr
1715   1720   1725

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Phe Ala  Val Asn Ala Asn Tyr  Ser Ala Asn Asp Thr  Tyr Ser Arg
    1730                 1735              1740

Pro Asp  Ala Asn Gly Arg Lys  His Val Tyr Tyr Val  Arg Val Leu
    1745                 1750              1755

Thr Gly  Ile Tyr Thr His Gly  Asn His Ser Leu Ile  Val Pro Pro
    1760                 1765              1770

Ser Lys  Asn Pro Gln Asn Pro  Thr Asp Leu Tyr Asp  Thr Val Thr
    1775                 1780              1785

Asp Asn  Val His His Pro Ser  Leu Phe Val Ala Phe  Tyr Asp Tyr
    1790                 1795              1800

Gln Ala  Tyr Pro Glu Tyr Leu  Ile Thr Phe Arg Lys
    1805                 1810              1815


<210>  228
<211>  1744
<212>  PRT
<213>  Homo sapien

<400>  228

Met Asn Ser Leu Ile Tyr Asn Val Ser Asn Tyr Gln Ser Phe Ile Val
1               5               10              15

His Pro Ser Ser Thr Ser Ala Ser Phe Glu Gly Glu Cys Glu Val Arg
            20              25              30

Gln Asp Pro Arg Ser Pro Ser Arg Phe Leu Val Phe Phe Tyr Pro Glu
        35              40              45

Asp Val Arg Gln Lys Val Leu Glu Arg Lys Asn His Glu Leu Val Trp
    50              55              60

Gln Gly Lys Gly Thr Phe Lys Leu Thr Val Gln Leu Pro Ala Thr Pro
65              70              75              80

Asp Glu Ile Asp His Val Phe Glu Glu Glu Leu Leu Thr Lys Glu Ser
                85              90              95

Lys Thr Lys Glu Asp Val Lys Glu Pro Asp Val Ser Glu Glu Leu Asp
            100             105             110

Thr Lys Leu Pro Leu Asp Gly Gly Leu Asp Lys Met Glu Asp Ile Pro
        115             120             125
```

286

```
Glu Glu Cys Glu Asn Ile Ser Ser Leu Val Ala Phe Glu Asn Leu Lys
    130              135              140

Ala Asn Val Thr Asp Ile Met Leu Ile Leu Leu Val Glu Asn Ile Ser
 145              150              155              160

Gly Leu Ser Asn Asp Asp Phe Gln Val Glu Ile Ile Arg Asp Phe Asp
                165              170              175

Val Ala Val Val Thr Phe Gln Lys His Ile Asp Thr Ile Arg Phe Val
             180              185              190

Asp Asp Cys Thr Lys His His Ser Ile Lys Gln Leu Gln Leu Ser Pro
         195              200              205

Arg Leu Leu Glu Val Thr Asn Thr Ile Arg Val Glu Asn Leu Pro Pro
    210              215              220

Gly Ala Asp Asp Tyr Ser Leu Lys Leu Phe Phe Glu Asn Pro Tyr Asn
225              230              235              240

Gly Gly Gly Arg Val Ala Asn Val Glu Tyr Phe Pro Glu Glu Ser Ser
             245              250              255

Ala Leu Ile Glu Phe Phe Asp Arg Lys Val Leu Asp Thr Ile Met Ala
             260              265              270

Thr Lys Leu Asp Phe Asn Lys Met Pro Leu Ser Val Phe Pro Tyr Tyr
         275              280              285

Ala Ser Leu Gly Thr Ala Leu Tyr Gly Lys Glu Lys Pro Leu Ile Lys
    290              295              300

Leu Pro Ala Pro Phe Glu Glu Ser Leu Asp Leu Pro Leu Trp Lys Phe
305              310              315              320

Leu Gln Lys Lys Asn His Leu Ile Glu Glu Ile Asn Asp Glu Met Arg
             325              330              335

Arg Cys His Cys Glu Leu Thr Trp Ser Gln Leu Ser Gly Lys Val Thr
         340              345              350

Ile Arg Pro Ala Ala Thr Leu Val Asn Glu Gly Arg Pro Arg Ile Lys
    355              360              365
```

```
Thr Trp Gln Ala Asp Thr Ser Thr Thr Leu Ser Ser Ile Arg Ser Lys
    370             375             380

Tyr Lys Val Asn Pro Ile Lys Val Asp Pro Thr Met Trp Asp Thr Ile
385             390             395                     400

Lys Asn Asp Val Lys Asp Asp Arg Ile Leu Ile Glu Phe Asp Thr Leu
                405             410                 415

Lys Glu Met Val Ile Leu Ala Gly Lys Ser Glu Asp Val Gln Ser Ile
            420             425             430

Glu Val Gln Val Arg Glu Leu Ile Glu Ser Thr Thr Gln Lys Ile Lys
        435             440             445

Arg Glu Glu Gln Ser Leu Lys Glu Lys Met Ile Ile Ser Pro Gly Arg
    450             455             460

Tyr Phe Leu Leu Cys His Ser Ser Leu Leu Asp His Leu Leu Thr Glu
465             470             475                     480

Cys Pro Glu Ile Glu Ile Cys Tyr Asp Arg Val Thr Gln His Leu Cys
            485             490                 495

Leu Lys Gly Pro Ser Ala Asp Val Tyr Lys Ala Lys Cys Glu Ile Gln
            500             505             510

Glu Lys Val Tyr Thr Met Ala Gln Lys Asn Ile Gln Val Ser Pro Glu
        515             520             525

Ile Phe Gln Phe Leu Gln Gln Val Asn Trp Lys Glu Phe Ser Lys Cys
    530             535             540

Leu Phe Ile Ala Gln Lys Ile Leu Ala Leu Tyr Glu Leu Glu Gly Thr
545             550             555                     560

Thr Val Leu Leu Thr Ser Cys Ser Ser Glu Ala Leu Leu Glu Ala Glu
            565             570                 575

Lys Gln Met Leu Ser Ala Leu Asn Tyr Lys Arg Ile Glu Val Glu Asn
            580             585             590

Lys Glu Val Leu His Gly Lys Lys Trp Lys Gly Leu Thr His Asn Leu
    595             600             605
```

288

Leu Lys Lys Gln Asn Ser Ser Pro Asn Thr Val Ile Ile Asn Glu Leu
    610   615   620

Thr Ser Glu Thr Thr Ala Glu Val Ile Ile Thr Gly Cys Val Lys Glu
625   630   635   640

Val Asn Glu Thr Tyr Lys Leu Leu Phe Asn Phe Val Glu Gln Asn Met
                645   650   655

Lys Ile Glu Arg Leu Val Glu Val Lys Pro Ser Leu Val Ile Asp Tyr
            660   665   670

Leu Lys Thr Glu Lys Lys Leu Phe Trp Pro Lys Ile Lys Lys Val Asn
        675   680   685

Val Gln Val Ser Phe Asn Pro Glu Asn Lys Gln Lys Gly Ile Leu Leu
    690   695   700

Thr Gly Ser Lys Thr Glu Val Leu Lys Ala Val Asp Ile Val Lys Gln
705   710   715   720

Val Trp Asp Ser Val Cys Val Lys Ser Val His Thr Asp Lys Pro Gly
            725   730   735

Ala Lys Gln Phe Phe Gln Asp Lys Ala Arg Phe Tyr Gln Ser Glu Ile
            740   745   750

Lys Arg Leu Phe Gly Cys Tyr Ile Glu Leu Gln Glu Asn Glu Val Met
        755   760   765

Lys Glu Gly Gly Ser Pro Ala Gly Gln Lys Cys Phe Ser Arg Thr Val
    770   775   780

Leu Ala Pro Gly Val Val Leu Ile Val Gln Gln Gly Asp Leu Ala Arg
785   790   795   800

Leu Pro Val Asp Val Val Val Asn Ala Ser Asn Glu Asp Leu Lys His
            805   810   815

Tyr Gly Gly Leu Ala Ala Ala Leu Ser Lys Ala Ala Gly Pro Glu Leu
            820   825   830

Gln Ala Asp Cys Asp Gln Ile Val Lys Arg Glu Gly Arg Leu Leu Pro
        835   840   845

Gly Asn Ala Thr Ile Ser Lys Ala Gly Lys Leu Pro Tyr His His Val

```
          850                    855                    860

Ile His Ala Val Gly Pro Arg Trp Ser Gly Tyr Glu Ala Pro Arg Cys
865                    870                    875                    880

Val Tyr Leu Leu Arg Arg Ala Val Gln Leu Ser Leu Cys Leu Ala Glu
                   885                    890                    895

Lys Tyr Lys Tyr Arg Ser Ile Ala Ile Pro Ala Ile Ser Ser Gly Val
                   900                    905                    910

Phe Gly Phe Pro Leu Gly Arg Cys Val Glu Thr Ile Val Ser Ala Ile
         915                    920                    925

Lys Glu Asn Phe Gln Phe Lys Lys Asp Gly His Cys Leu Lys Glu Ile
         930                    935                    940

Tyr Leu Val Asp Val Ser Glu Lys Thr Val Gly Pro Leu Gln Met Leu
945                    950                    955                    960

Leu Val Lys Glu Gly Val Gln Asn Ala Lys Thr Asp Val Val Val Asn
                   965                    970                    975

Ser Val Pro Leu Asp Leu Val Leu Ser Arg Gly Pro Leu Ser Lys Ser
                   980                    985                    990

Leu Leu Glu Lys Ala Gly Pro Glu  Leu Gln Glu Glu Leu  Asp Thr Val
                   995                    1000                   1005

Gly Gln Gly Val Ala Val Ser  Met Gly Thr Val Leu  Lys Thr Ser
         1010                   1015                   1020

Ser Trp Asn Leu Asp Cys Arg  Tyr Val Leu His Val  Val Ala Pro
         1025                   1030                   1035

Glu Trp Arg Asn Gly Ser Thr  Ser Ser Leu Lys Ile  Met Glu Asp
         1040                   1045                   1050

Ile Ile Arg Glu Cys Met Glu  Ile Thr Glu Ser Leu  Ser Leu Lys
         1055                   1060                   1065

Ser Ile Ala Phe Pro Ala Ile  Gly Thr Gly Asn Leu  Gly Phe Pro
         1070                   1075                   1080

Lys Asn Ile Phe Ala Glu Leu  Ile Ile Ser Glu Val  Phe Lys Phe
         1085                   1090                   1095
```

Ser Ser Lys Asn Gln Leu Lys Thr Leu Gln Glu Val His Phe Leu
    1100   1105   1110

Leu His Pro Ser Asp His Glu Asn Ile Gln Ala Phe Ser Asp Glu
    1115   1120   1125

Phe Ala Arg Arg Ala Asn Gly Asn Leu Val Ser Asp Lys Ile Pro
    1130   1135   1140

Lys Ala Lys Asp Thr Gln Gly Phe Tyr Gly Thr Val Ser Ser Pro
    1145   1150   1155

Asp Ser Gly Val Tyr Glu Met Lys Ile Gly Ser Ile Ile Phe Gln
    1160   1165   1170

Val Ala Ser Gly Asp Ile Thr Lys Glu Glu Ala Asp Val Ile Val
    1175   1180   1185

Asn Ser Thr Ser Asn Ser Phe Asn Leu Lys Ala Gly Val Ser Lys
    1190   1195   1200

Ala Ile Leu Glu Cys Ala Gly Gln Asn Val Glu Arg Glu Cys Ser
    1205   1210   1215

Gln Gln Ala Gln Gln Arg Lys Asn Asp Tyr Ile Ile Thr Gly Gly
    1220   1225   1230

Gly Phe Leu Arg Cys Lys Asn Ile Ile His Val Ile Gly Gly Asn
    1235   1240   1245

Asp Val Lys Ser Ser Val Ser Ser Val Leu Gln Glu Cys Glu Lys
    1250   1255   1260

Lys Asn Tyr Ser Ser Ile Cys Leu Pro Ala Ile Gly Thr Gly Asn
    1265   1270   1275

Ala Lys Gln His Pro Asp Lys Val Ala Glu Ala Ile Ile Asp Ala
    1280   1285   1290

Ile Glu Asp Phe Val Gln Lys Gly Ser Ala Gln Ser Val Lys Lys
    1295   1300   1305

Val Lys Val Val Ile Phe Leu Pro Gln Val Leu Asp Val Phe Tyr
    1310   1315   1320

Ala Asn Met Lys Lys Arg Glu Gly Thr Gln Leu Ser Ser Gln Gln
    1325   1330   1335

Ser Val Met Ser Lys Leu Ala Ser Phe Leu Gly Phe Ser Lys Gln
    1340   1345   1350

Ser Pro Gln Lys Lys Asn His Leu Val Leu Glu Lys Lys Thr Glu
    1355   1360   1365

Ser Ala Thr Phe Arg Val Cys Gly Glu Asn Val Thr Cys Val Glu
    1370   1375   1380

Tyr Ala Ile Ser Trp Leu Gln Asp Leu Ile Glu Lys Glu Gln Cys
    1385   1390   1395

Pro Tyr Thr Ser Glu Asp Glu Cys Ile Lys Asp Phe Asp Glu Lys
    1400   1405   1410

Glu Tyr Gln Glu Leu Asn Glu Leu Gln Lys Lys Leu Asn Ile Asn
    1415   1420   1425

Ile Ser Leu Asp His Lys Arg Pro Leu Ile Lys Val Leu Gly Ile
    1430   1435   1440

Ser Arg Asp Val Met Gln Ala Arg Asp Glu Ile Glu Ala Met Ile
    1445   1450   1455

Lys Arg Val Arg Leu Ala Lys Glu Gln Glu Ser Arg Ala Asp Cys
    1460   1465   1470

Ile Ser Glu Phe Ile Glu Trp Gln Tyr Asn Asp Asn Asn Thr Ser
    1475   1480   1485

His Cys Phe Asn Lys Met Thr Asn Leu Lys Leu Glu Asp Ala Arg
    1490   1495   1500

Arg Glu Lys Lys Lys Thr Val Asp Val Lys Ile Asn His Arg His
    1505   1510   1515

Tyr Thr Val Asn Leu Asn Thr Tyr Thr Ala Thr Asp Thr Lys Gly
    1520   1525   1530

His Ser Leu Ser Val Gln Arg Leu Thr Lys Ser Lys Val Asp Ile
    1535   1540   1545

```
Pro Ala  His Trp Ser Asp Met  Lys Gln Gln Asn Phe  Cys Val Val
    1550             1555              1560

Glu Leu  Leu Pro Ser Asp Pro  Glu Tyr Asn Thr Val  Ala Ser Lys
    1565             1570              1575

Phe Asn  Gln Thr Cys Ser His  Phe Arg Ile Glu Lys  Ile Glu Arg
    1580             1585              1590

Ile Gln  Asn Pro Asp Leu Trp  Asn Ser Tyr Gln Ala  Lys Lys Lys
    1595             1600              1605

Thr Met  Asp Ala Lys Asn Gly  Gln Thr Met Asn Glu  Lys Gln Leu
    1610             1615              1620

Phe His  Gly Thr Asp Ala Gly  Ser Val Pro His Val  Asn Arg Asn
    1625             1630              1635

Gly Phe  Asn Arg Ser Tyr Ala  Gly Lys Asn Ala Val  Ala Tyr Gly
    1640             1645              1650

Lys Gly  Thr Tyr Phe Ala Val  Asn Ala Asn Tyr Ser  Ala Asn Asp
    1655             1660              1665

Thr Tyr  Ser Arg Pro Asp Ala  Asn Gly Arg Lys His  Val Tyr Tyr
    1670             1675              1680

Val Arg  Val Leu Thr Gly Ile  Tyr Thr His Gly Asn  His Ser Leu
    1685             1690              1695

Ile Val  Pro Pro Ser Lys Asn  Pro Gln Asn Pro Thr  Asp Leu Tyr
    1700             1705              1710

Asp Thr  Val Thr Asp Asn Val  His His Pro Ser Leu  Phe Val Ala
    1715             1720              1725

Phe Tyr  Asp Tyr Gln Ala Tyr  Pro Glu Tyr Leu Ile  Thr Phe Arg
    1730             1735              1740

Lys
```

<210> 229
<211> 968
<212> PRT
<213> Homo sapien

<400> 229

Asn Ser Leu Ile Tyr Asn Val Ser Asn Tyr Gln Ser Phe Ile Val His
1   5   10   15

Pro Ser Ser Thr Ser Ala Ser Phe Glu Gly Glu Cys Glu Val Arg Gln
            20   25   30

Asp Pro Arg Ser Pro Ser Arg Phe Leu Val Phe Phe Tyr Pro Glu Asp
            35   40   45

Val Arg Gln Lys Val Leu Glu Arg Lys Asn His Glu Leu Val Trp Gln
        50   55   60

Gly Lys Gly Thr Phe Lys Leu Thr Val Gln Leu Pro Ala Thr Pro Asp
65   70   75   80

Glu Ile Asp His Val Phe Glu Glu Glu Leu Leu Thr Lys Glu Ser Lys
                85   90   95

Thr Lys Glu Asp Val Lys Glu Pro Asp Val Ser Glu Glu Leu Asp Thr
            100   105   110

Lys Leu Pro Leu Asp Gly Gly Leu Asp Lys Met Glu Asp Ile Pro Glu
        115   120   125

Glu Cys Glu Asn Ile Ser Ser Leu Val Ala Phe Glu Asn Leu Lys Ala
        130   135   140

Asn Val Thr Asp Ile Met Leu Ile Leu Leu Val Glu Asn Ile Ser Gly
145   150   155   160

Leu Ser Asn Asp Asp Phe Gln Val Glu Ile Ile Arg Asp Phe Asp Val
            165   170   175

Ala Val Val Thr Phe Gln Lys His Ile Asp Thr Ile Arg Phe Val Asp
            180   185   190

Asp Cys Thr Lys His His Ser Ile Lys Gln Leu Gln Leu Ser Pro Arg
        195   200   205

Leu Leu Glu Val Thr Asn Thr Ile Arg Val Glu Asn Leu Pro Pro Gly
    210   215   220

Ala Asp Asp Tyr Ser Leu Lys Leu Phe Phe Glu Asn Pro Tyr Asn Gly
225   230   235   240

Gly Gly Arg Val Ala Asn Val Glu Tyr Phe Pro Glu Glu Ser Ser Ala
              245   250   255

Leu Ile Glu Phe Phe Asp Arg Lys Val Leu Asp Thr Ile Met Ala Thr
              260   265   270

Lys Leu Asp Phe Asn Lys Met Pro Leu Ser Val Phe Pro Tyr Tyr Ala
              275   280   285

Ser Leu Gly Thr Ala Leu Tyr Gly Lys Glu Lys Pro Leu Ile Lys Leu
         290   295   300

Pro Ala Pro Phe Glu Glu Ser Leu Asp Leu Pro Leu Trp Lys Phe Leu
305   310   315   320

Gln Lys Lys Asn His Leu Ile Glu Glu Ile Asn Asp Glu Met Arg Arg
              325   330   335

Cys His Cys Glu Leu Thr Trp Ser Gln Leu Ser Gly Lys Val Thr Ile
              340   345   350

Arg Pro Ala Ala Thr Leu Val Asn Glu Gly Arg Pro Arg Ile Lys Thr
         355   360   365

Trp Gln Ala Asp Thr Ser Thr Thr Leu Ser Ser Ile Arg Ser Lys Tyr
370   375   380

Lys Val Asn Pro Ile Lys Val Asp Pro Thr Met Trp Asp Thr Ile Lys
385   390   395   400

Asn Asp Val Lys Asp Asp Arg Ile Leu Ile Glu Phe Asp Thr Leu Lys
              405   410   415

Glu Met Val Ile Leu Ala Gly Lys Ser Glu Asp Val Gln Ser Ile Glu
              420   425   430

Val Gln Val Arg Glu Leu Ile Glu Ser Thr Thr Gln Lys Ile Lys Arg
         435   440   445

Glu Glu Gln Ser Leu Lys Glu Lys Met Ile Ile Ser Pro Gly Arg Tyr
         450   455   460

Phe Leu Leu Cys His Ser Ser Leu Leu Asp His Leu Leu Thr Glu Cys
465   470   475   480

```
Pro Glu Ile Glu Ile Cys Tyr Asp Arg Val Thr Gln His Leu Cys Leu
            485             490                 495

Lys Gly Pro Ser Ala Asp Val Tyr Lys Ala Lys Cys Glu Ile Gln Glu
            500                 505                 510

Lys Val Tyr Thr Met Ala Gln Lys Asn Ile Gln Val Ser Pro Glu Ile
            515                 520                 525

Phe Gln Phe Leu Gln Gln Val Asn Trp Lys Glu Phe Ser Lys Cys Leu
    530             535                 540

Phe Ile Ala Gln Lys Ile Leu Ala Leu Tyr Glu Leu Glu Gly Thr Thr
545             550             555                 560

Val Leu Leu Thr Ser Cys Ser Ser Glu Ala Leu Leu Glu Ala Glu Lys
            565                 570                 575

Gln Met Leu Ser Ala Leu Asn Tyr Lys Arg Ile Glu Val Glu Asn Lys
            580                 585                 590

Glu Val Leu His Gly Lys Lys Trp Lys Gly Leu Thr His Asn Leu Leu
            595                 600                 605

Lys Lys Gln Asn Ser Ser Pro Asn Thr Val Ile Ile Asn Glu Leu Thr
            610                 615                 620

Ser Glu Thr Thr Ala Glu Val Ile Ile Thr Gly Cys Val Lys Glu Val
625                 630                 635                 640

Asn Glu Thr Tyr Lys Leu Leu Phe Asn Phe Val Glu Gln Asn Met Lys
                645             650                 655

Ile Glu Arg Leu Val Glu Val Lys Pro Ser Leu Val Ile Asp Tyr Leu
            660                 665                 670

Lys Thr Glu Lys Lys Leu Phe Trp Pro Lys Ile Lys Lys Val Asn Val
            675                 680                 685

Gln Val Ser Phe Asn Pro Glu Asn Lys Gln Lys Gly Ile Leu Leu Thr
            690                 695                 700

Gly Ser Lys Thr Glu Val Leu Lys Ala Val Asp Ile Val Lys Gln Val
705                 710                 715                 720

Trp Asp Ser Val Cys Val Lys Ser Val His Thr Asp Lys Pro Gly Ala
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```
                    725                      730                      735

Lys Gln Phe Phe Gln Asp Lys Ala Arg Phe Tyr Gln Ser Glu Ile Lys
            740                      745                      750


Arg Leu Phe Gly Cys Tyr Ile Glu Leu Gln Glu Asn Glu Val Met Lys
        755                      760                      765


Glu Gly Gly Ser Pro Ala Gly Gln Lys Cys Phe Ser Arg Thr Val Leu
    770                      775                      780


Ala Pro Gly Val Val Leu Ile Val Gln Gln Gly Asp Leu Ala Arg Leu
785                      790                      795                      800


Pro Val Asp Val Val Val Asn Ala Ser Asn Glu Asp Leu Lys His Tyr
            805                      810                      815


Gly Gly Leu Ala Ala Ala Leu Ser Lys Ala Ala Gly Pro Glu Leu Gln
        820                      825                      830


Ala Asp Cys Asp Gln Ile Val Lys Arg Glu Gly Arg Leu Leu Pro Gly
        835                      840                      845


Asn Ala Thr Ile Ser Lys Ala Gly Lys Leu Pro Tyr His His Val Ile
    850                      855                      860


His Ala Val Gly Pro Arg Trp Ser Gly Tyr Glu Ala Pro Arg Cys Val
865                      870                      875                      880


Tyr Leu Leu Arg Arg Ala Val Gln Leu Ser Leu Cys Leu Ala Glu Lys
            885                      890                      895


Tyr Lys Tyr Arg Ser Ile Ala Ile Pro Ala Ile Ser Ser Gly Val Phe
            900                      905                      910


Gly Phe Pro Leu Gly Arg Cys Val Glu Thr Ile Val Ser Ala Ile Lys
        915                      920                      925


Glu Asn Phe Gln Phe Lys Lys Asp Gly His Cys Leu Lys Glu Ile Tyr
    930                      935                      940


Leu Val Asp Val Ser Glu Lys Thr Val Glu Ala Phe Ala Asp Ala Val
945                      950                      955                      960


Gly Glu Arg Gly Cys Ala Glu Cys
            965
```

```
<210>   230
<211>   968
<212>   PRT
<213>   Homo sapien

<400>   230

Asn Ser Leu Ile Tyr Asn Val Ser Asn Tyr Gln Ser Phe Ile Val His
1               5                   10                  15


Pro Ser Ser Thr Ser Ala Ser Phe Glu Gly Glu Cys Glu Val Arg Gln
            20                  25                  30


Asp Pro Arg Ser Pro Ser Arg Phe Leu Val Phe Phe Tyr Pro Glu Asp
        35                  40                  45


Val Arg Gln Lys Val Leu Glu Arg Lys Asn His Glu Leu Val Trp Gln
    50                  55                  60


Gly Lys Gly Thr Phe Lys Leu Thr Val Gln Leu Pro Ala Thr Pro Asp
65                  70                  75                  80


Glu Ile Asp His Val Phe Glu Glu Glu Leu Leu Thr Lys Glu Ser Lys
            85                  90                  95


Thr Lys Glu Asp Val Lys Glu Pro Asp Val Ser Glu Glu Leu Asp Thr
            100                 105                 110


Lys Leu Pro Leu Asp Gly Gly Leu Asp Lys Met Glu Asp Ile Pro Glu
            115                 120                 125


Glu Cys Glu Asn Ile Ser Ser Leu Val Ala Phe Glu Asn Leu Lys Ala
    130                 135                 140


Asn Val Thr Asp Ile Met Leu Ile Leu Leu Val Glu Asn Ile Ser Gly
145                 150                 155                 160


Leu Ser Asn Asp Asp Phe Gln Val Glu Ile Ile Arg Asp Phe Asp Val
                165                 170                 175


Ala Val Val Thr Phe Gln Lys His Ile Asp Thr Ile Arg Phe Val Asp
            180                 185                 190


Asp Cys Thr Lys His His Ser Ile Lys Gln Leu Gln Leu Ser Pro Arg
        195                 200                 205
```

Leu Leu Glu Val Thr Asn Thr Ile Arg Val Glu Asn Leu Pro Pro Gly
    210   215   220

Ala Asp Asp Tyr Ser Leu Lys Leu Phe Phe Glu Asn Pro Tyr Asn Gly
225   230   235   240

Gly Gly Arg Val Ala Asn Val Glu Tyr Phe Pro Glu Glu Ser Ser Ala
                245   250   255

Leu Ile Glu Phe Phe Asp Arg Lys Val Leu Asp Thr Ile Met Ala Thr
        260   265   270

Lys Leu Asp Phe Asn Lys Met Pro Leu Ser Val Phe Pro Tyr Tyr Ala
        275   280   285

Ser Leu Gly Thr Ala Leu Tyr Gly Lys Glu Lys Pro Leu Ile Lys Leu
    290   295   300

Pro Ala Pro Phe Glu Glu Ser Leu Asp Leu Pro Leu Trp Lys Phe Leu
305   310   315   320

Gln Lys Lys Asn His Leu Ile Glu Glu Ile Asn Asp Glu Met Arg Arg
                325   330   335

Cys His Cys Glu Leu Thr Trp Ser Gln Leu Ser Gly Lys Val Thr Ile
            340   345   350

Arg Pro Ala Ala Thr Leu Val Asn Glu Gly Arg Pro Arg Ile Lys Thr
    355   360   365

Trp Gln Ala Asp Thr Ser Thr Thr Leu Ser Ser Ile Arg Ser Lys Tyr
    370   375   380

Lys Val Asn Pro Ile Lys Val Asp Pro Thr Met Trp Asp Thr Ile Lys
385   390   395   400

Asn Asp Val Lys Asp Asp Arg Ile Leu Ile Glu Phe Asp Thr Leu Lys
                405   410   415

Glu Met Val Ile Leu Ala Gly Lys Ser Glu Asp Val Gln Ser Ile Glu
            420   425   430

Val Gln Val Arg Glu Leu Ile Glu Ser Thr Thr Gln Lys Ile Lys Arg
        435   440   445

Glu Glu Gln Ser Leu Lys Glu Lys Met Ile Ile Ser Pro Gly Arg Tyr

```
          450                       455                       460

     Phe Leu Leu Cys His Ser Ser Leu Leu Asp His Leu Leu Thr Glu Cys
     465                 470                 475                 480


     Pro Glu Ile Glu Ile Cys Tyr Asp Arg Val Thr Gln His Leu Cys Leu
                     485                 490                 495


     Lys Gly Pro Ser Ala Asp Val Tyr Lys Ala Lys Cys Glu Ile Gln Glu
                     500                 505                 510


     Lys Val Tyr Thr Met Ala Gln Lys Asn Ile Gln Val Ser Pro Glu Ile
                     515                 520                 525


     Phe Gln Phe Leu Gln Gln Val Asn Trp Lys Glu Phe Ser Lys Cys Leu
         530                 535                 540


     Phe Ile Ala Gln Lys Ile Leu Ala Leu Tyr Glu Leu Glu Gly Thr Thr
     545                 550                 555                 560


     Val Leu Leu Thr Ser Cys Ser Ser Glu Ala Leu Leu Glu Ala Glu Lys
                     565                 570                 575


     Gln Met Leu Ser Ala Leu Asn Tyr Lys Arg Ile Glu Val Glu Asn Lys
                 580                 585                 590


     Glu Val Leu His Gly Lys Lys Trp Lys Gly Leu Thr His Asn Leu Leu
                 595                 600                 605


     Lys Lys Gln Asn Ser Ser Pro Asn Thr Val Ile Ile Asn Glu Leu Thr
                 610                 615                 620


     Ser Glu Thr Thr Ala Glu Val Ile Ile Thr Gly Cys Val Lys Glu Val
     625                 630                 635                 640


     Asn Glu Thr Tyr Lys Leu Leu Phe Asn Phe Val Glu Gln Asn Met Lys
                     645                 650                 655


     Ile Glu Arg Leu Val Glu Val Lys Pro Ser Leu Val Ile Asp Tyr Leu
                 660                 665                 670


     Lys Thr Glu Lys Lys Leu Phe Trp Pro Lys Ile Lys Lys Val Asn Val
                 675                 680                 685


     Gln Val Ser Phe Asn Pro Glu Asn Lys Gln Lys Gly Ile Leu Leu Thr
         690                 695                 700
```

300

```
Gly Ser Lys Thr Glu Val Leu Lys Ala Val Asp Ile Val Lys Gln Val
705            710            715               720

Trp Asp Ser Val Cys Val Lys Ser Val His Thr Asp Lys Pro Gly Ala
              725               730            735

Lys Gln Phe Phe Gln Asp Lys Ala Arg Phe Tyr Gln Ser Glu Ile Lys
            740            745               750

Arg Leu Phe Gly Cys Tyr Ile Glu Leu Gln Glu Asn Glu Val Met Lys
            755            760            765

Glu Gly Gly Ser Pro Ala Gly Gln Lys Cys Phe Ser Arg Thr Val Leu
        770            775            780

Ala Pro Gly Val Val Leu Ile Val Gln Gln Gly Asp Leu Ala Arg Leu
785            790            795               800

Pro Val Asp Val Val Val Asn Ala Ser Asn Glu Asp Leu Lys His Tyr
              805               810            815

Gly Gly Leu Ala Ala Ala Leu Ser Lys Ala Ala Gly Pro Glu Leu Gln
            820            825            830

Ala Asp Cys Asp Gln Ile Val Lys Arg Glu Gly Arg Leu Leu Pro Gly
            835            840            845

Asn Ala Thr Ile Ser Lys Ala Gly Lys Leu Pro Tyr His His Val Ile
    850            855            860

His Ala Val Gly Pro Arg Trp Ser Gly Tyr Glu Ala Pro Arg Cys Val
865            870            875               880

Tyr Leu Leu Arg Arg Ala Val Gln Leu Ser Leu Cys Leu Ala Glu Lys
            885            890            895

Tyr Lys Tyr Arg Ser Ile Ala Ile Pro Ala Ile Ser Ser Gly Val Phe
            900            905            910

Gly Phe Pro Leu Gly Arg Cys Val Glu Thr Ile Val Ser Ala Ile Lys
    915            920            925

Glu Asn Phe Gln Phe Lys Lys Asp Gly His Cys Leu Lys Glu Ile Tyr
    930            935            940
```

```
Leu Val Asp Val Ser Glu Lys Thr Val Glu Ala Phe Ala Asp Ala Val
945              950          955              960


Gly Glu Arg Gly Cys Ala Glu Cys
            965
```

```
<210>  231
<211>  968
<212>  PRT
<213>  Homo sapien

<400>  231
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```
Asn Ser Leu Ile Tyr Asn Val Ser Asn Tyr Gln Ser Phe Ile Val His
1               5               10          15


Pro Ser Ser Thr Ser Ala Ser Phe Glu Gly Glu Cys Glu Val Arg Gln
            20              25              30


Asp Pro Arg Ser Pro Ser Arg Phe Leu Val Phe Phe Tyr Pro Glu Asp
        35              40              45


Val Arg Gln Lys Val Leu Glu Arg Lys Asn His Glu Leu Val Trp Gln
    50              55              60


Gly Lys Gly Thr Phe Lys Leu Thr Val Gln Leu Pro Ala Thr Pro Asp
65              70              75              80


Glu Ile Asp His Val Phe Glu Glu Glu Leu Leu Thr Lys Glu Ser Lys
                85              90              95


Thr Lys Glu Asp Val Lys Glu Pro Asp Val Ser Glu Glu Leu Asp Thr
            100             105             110


Lys Leu Pro Leu Asp Gly Gly Leu Asp Lys Met Glu Asp Ile Pro Glu
        115             120             125


Glu Cys Glu Asn Ile Ser Ser Leu Val Ala Phe Glu Asn Leu Lys Ala
        130             135             140


Asn Val Thr Asp Ile Met Leu Ile Leu Leu Val Glu Asn Ile Ser Gly
145             150             155             160


Leu Ser Asn Asp Asp Phe Gln Val Glu Ile Ile Arg Asp Phe Asp Val
            165             170             175


Ala Val Val Thr Phe Gln Lys His Ile Asp Thr Ile Arg Phe Val Asp
```

302

```
           180                  185                  190

Asp Cys Thr Lys His His Ser Ile Lys Gln Leu Gln Leu Ser Pro Arg
        195             200             205

Leu Leu Glu Val Thr Asn Thr Ile Arg Val Glu Asn Leu Pro Pro Gly
    210             215             220

Ala Asp Asp Tyr Ser Leu Lys Leu Phe Phe Glu Asn Pro Tyr Asn Gly
225             230             235             240

Gly Gly Arg Val Ala Asn Val Glu Tyr Phe Pro Glu Glu Ser Ser Ala
            245             250             255

Leu Ile Glu Phe Phe Asp Arg Lys Val Leu Asp Thr Ile Met Ala Thr
            260             265             270

Lys Leu Asp Phe Asn Lys Met Pro Leu Ser Val Phe Pro Tyr Tyr Ala
            275             280             285

Ser Leu Gly Thr Ala Leu Tyr Gly Lys Glu Lys Pro Leu Ile Lys Leu
    290             295             300

Pro Ala Pro Phe Glu Glu Ser Leu Asp Leu Pro Leu Trp Lys Phe Leu
305             310             315             320

Gln Lys Lys Asn His Leu Ile Glu Glu Ile Asn Asp Glu Met Arg Arg
            325             330             335

Cys His Cys Glu Leu Thr Trp Ser Gln Leu Ser Gly Lys Val Thr Ile
            340             345             350

Arg Pro Ala Ala Thr Leu Val Asn Glu Gly Arg Pro Arg Ile Lys Thr
    355             360             365

Trp Gln Ala Asp Thr Ser Thr Thr Leu Ser Ser Ile Arg Ser Lys Tyr
370             375             380

Lys Val Asn Pro Ile Lys Val Asp Pro Thr Met Trp Asp Thr Ile Lys
385             390             395             400

Asn Asp Val Lys Asp Asp Arg Ile Leu Ile Glu Phe Asp Thr Leu Lys
            405             410             415

Glu Met Val Ile Leu Ala Gly Lys Ser Glu Asp Val Gln Ser Ile Glu
            420             425             430
```

Val Gln Val Arg Glu Leu Ile Glu Ser Thr Thr Gln Lys Ile Lys Arg
    435   440   445

Glu Glu Gln Ser Leu Lys Glu Lys Met Ile Ile Ser Pro Gly Arg Tyr
    450   455   460

Phe Leu Leu Cys His Ser Ser Leu Leu Asp His Leu Leu Thr Glu Cys
465   470   475   480

Pro Glu Ile Glu Ile Cys Tyr Asp Arg Val Thr Gln His Leu Cys Leu
              485   490   495

Lys Gly Pro Ser Ala Asp Val Tyr Lys Ala Lys Cys Glu Ile Gln Glu
          500   505   510

Lys Val Tyr Thr Met Ala Gln Lys Asn Ile Gln Val Ser Pro Glu Ile
          515   520   525

Phe Gln Phe Leu Gln Gln Val Asn Trp Lys Glu Phe Ser Lys Cys Leu
    530   535   540

Phe Ile Ala Gln Lys Ile Leu Ala Leu Tyr Glu Leu Glu Gly Thr Thr
545   550   555   560

Val Leu Leu Thr Ser Cys Ser Ser Glu Ala Leu Leu Glu Ala Glu Lys
              565   570   575

Gln Met Leu Ser Ala Leu Asn Tyr Lys Arg Ile Glu Val Glu Asn Lys
          580   585   590

Glu Val Leu His Gly Lys Lys Trp Lys Gly Leu Thr His Asn Leu Leu
    595   600   605

Lys Lys Gln Asn Ser Ser Pro Asn Thr Val Ile Ile Asn Glu Leu Thr
    610   615   620

Ser Glu Thr Thr Ala Glu Val Ile Ile Thr Gly Cys Val Lys Glu Val
625   630   635   640

Asn Glu Thr Tyr Lys Leu Leu Phe Asn Phe Val Glu Gln Asn Met Lys
              645   650   655

Ile Glu Arg Leu Val Glu Val Lys Pro Ser Leu Val Ile Asp Tyr Leu
          660   665   670

Lys Thr Glu Lys Lys Leu Phe Trp Pro Lys Ile Lys Lys Val Asn Val
        675   680   685

Gln Val Ser Phe Asn Pro Glu Asn Lys Gln Lys Gly Ile Leu Leu Thr
    690   695   700

Gly Ser Lys Thr Glu Val Leu Lys Ala Val Asp Ile Val Lys Gln Val
705   710   715   720

Trp Asp Ser Val Cys Val Lys Ser Val His Thr Asp Lys Pro Gly Ala
                725   730   735

Lys Gln Phe Phe Gln Asp Lys Ala Arg Phe Tyr Gln Ser Glu Ile Lys
            740   745   750

Arg Leu Phe Gly Cys Tyr Ile Glu Leu Gln Glu Asn Glu Val Met Lys
        755   760   765

Glu Gly Gly Ser Pro Ala Gly Gln Lys Cys Phe Ser Arg Thr Val Leu
    770   775   780

Ala Pro Gly Val Val Leu Ile Val Gln Gln Gly Asp Leu Ala Arg Leu
785   790   795   800

Pro Val Asp Val Val Val Asn Ala Ser Asn Glu Asp Leu Lys His Tyr
                805   810   815

Gly Gly Leu Ala Ala Ala Leu Ser Lys Ala Ala Gly Pro Glu Leu Gln
            820   825   830

Ala Asp Cys Asp Gln Ile Val Lys Arg Glu Gly Arg Leu Leu Pro Gly
        835   840   845

Asn Ala Thr Ile Ser Lys Ala Gly Lys Leu Pro Tyr His His Val Ile
    850   855   860

His Ala Val Gly Pro Arg Trp Ser Gly Tyr Glu Ala Pro Arg Cys Val
865   870   875   880

Tyr Leu Leu Arg Arg Ala Val Gln Leu Ser Leu Cys Leu Ala Glu Lys
                885   890   895

Tyr Lys Tyr Arg Ser Ile Ala Ile Pro Ala Ile Ser Ser Gly Val Phe
            900   905   910

```
Gly Phe Pro Leu Gly Arg Cys Val Glu Thr Ile Val Ser Ala Ile Lys
        915               920               925

Glu Asn Phe Gln Phe Lys Lys Asp Gly His Cys Leu Lys Glu Ile Tyr
    930               935               940

Leu Val Asp Val Ser Glu Lys Thr Val Glu Ala Phe Ala Asp Ala Val
945               950               955               960

Gly Glu Arg Gly Cys Ala Glu Cys
                965
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<210>  232
<211>  1744
<212>  PRT
<213>  Homo sapien

<400>  232
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```
Met Asn Ser Leu Ile Tyr Asn Val Ser Asn Tyr Gln Ser Phe Ile Val
1               5               10              15

His Pro Ser Ser Thr Ser Ala Ser Phe Glu Gly Glu Cys Glu Val Arg
        20              25              30

Gln Asp Pro Arg Ser Pro Ser Arg Phe Leu Val Phe Phe Tyr Pro Glu
        35              40              45

Asp Val Arg Gln Lys Val Leu Glu Arg Lys Asn His Glu Leu Val Trp
50              55              60

Gln Gly Lys Gly Thr Phe Lys Leu Thr Val Gln Leu Pro Ala Thr Pro
65              70              75              80

Asp Glu Ile Asp His Val Phe Glu Glu Glu Leu Leu Thr Lys Glu Ser
                85              90              95

Lys Thr Lys Glu Asp Val Lys Glu Pro Asp Val Ser Glu Glu Leu Asp
            100             105             110

Thr Lys Leu Pro Leu Asp Gly Gly Leu Asp Lys Met Glu Asp Ile Pro
        115             120             125

Glu Glu Cys Glu Asn Ile Ser Ser Leu Val Ala Phe Glu Asn Leu Lys
    130             135             140

Ala Asn Val Thr Asp Ile Met Leu Ile Leu Leu Val Glu Asn Ile Ser
145             150             155             160
```

Gly Leu Ser Asn Asp Asp Phe Gln Val Glu Ile Ile Arg Asp Phe Asp
            165   170   175

Val Ala Val Val Thr Phe Gln Lys His Ile Asp Thr Ile Arg Phe Val
          180   185   190

Asp Asp Cys Thr Lys His His Ser Ile Lys Gln Leu Gln Leu Ser Pro
          195   200   205

Arg Leu Leu Glu Val Thr Asn Thr Ile Arg Val Glu Asn Leu Pro Pro
210   215   220

Gly Ala Asp Asp Tyr Ser Leu Lys Leu Phe Phe Glu Asn Pro Tyr Asn
225   230   235   240

Gly Gly Gly Arg Val Ala Asn Val Glu Tyr Phe Pro Glu Glu Ser Ser
          245   250   255

Ala Leu Ile Glu Phe Phe Asp Arg Lys Val Leu Asp Thr Ile Met Ala
          260   265   270

Thr Lys Leu Asp Phe Asn Lys Met Pro Leu Ser Val Phe Pro Tyr Tyr
          275   280   285

Ala Ser Leu Gly Thr Ala Leu Tyr Gly Lys Glu Lys Pro Leu Ile Lys
290   295   300

Leu Pro Ala Pro Phe Glu Glu Ser Leu Asp Leu Pro Leu Trp Lys Phe
305   310   315   320

Leu Gln Lys Lys Asn His Leu Ile Glu Glu Ile Asn Asp Glu Met Arg
          325   330   335

Arg Cys His Cys Glu Leu Thr Trp Ser Gln Leu Ser Gly Lys Val Thr
          340   345   350

Ile Arg Pro Ala Ala Thr Leu Val Asn Glu Gly Arg Pro Arg Ile Lys
          355   360   365

Thr Trp Gln Ala Asp Thr Ser Thr Thr Leu Ser Ser Ile Arg Ser Lys
          370   375   380

Tyr Lys Val Asn Pro Ile Lys Val Asp Pro Thr Met Trp Asp Thr Ile
385   390   395   400

Lys Asn Asp Val Lys Asp Asp Arg Ile Leu Ile Glu Phe Asp Thr Leu
            405   410   415

Lys Glu Met Val Ile Leu Ala Gly Lys Ser Glu Asp Val Gln Ser Ile
            420   425   430

Glu Val Gln Val Arg Glu Leu Ile Glu Ser Thr Thr Gln Lys Ile Lys
            435   440   445

Arg Glu Glu Gln Ser Leu Lys Glu Lys Met Ile Ile Ser Pro Gly Arg
    450   455   460

Tyr Phe Leu Leu Cys His Ser Ser Leu Leu Asp His Leu Leu Thr Glu
465   470   475   480

Cys Pro Glu Ile Glu Ile Cys Tyr Asp Arg Val Thr Gln His Leu Cys
                485   490   495

Leu Lys Gly Pro Ser Ala Asp Val Tyr Lys Ala Lys Cys Glu Ile Gln
            500   505   510

Glu Lys Val Tyr Thr Met Ala Gln Lys Asn Ile Gln Val Ser Pro Glu
            515   520   525

Ile Phe Gln Phe Leu Gln Gln Val Asn Trp Lys Glu Phe Ser Lys Cys
    530   535   540

Leu Phe Ile Ala Gln Lys Ile Leu Ala Leu Tyr Glu Leu Glu Gly Thr
545   550   555   560

Thr Val Leu Leu Thr Ser Cys Ser Ser Glu Ala Leu Leu Glu Ala Glu
                565   570   575

Lys Gln Met Leu Ser Ala Leu Asn Tyr Lys Arg Ile Glu Val Glu Asn
            580   585   590

Lys Glu Val Leu His Gly Lys Lys Trp Lys Gly Leu Thr His Asn Leu
            595   600   605

Leu Lys Lys Gln Asn Ser Ser Pro Asn Thr Val Ile Ile Asn Glu Leu
    610   615   620

Thr Ser Glu Thr Thr Ala Glu Val Ile Ile Thr Gly Cys Val Lys Glu
625   630   635   640

Val Asn Glu Thr Tyr Lys Leu Leu Phe Asn Phe Val Glu Gln Asn Met
              645   650   655

Lys Ile Glu Arg Leu Val Glu Val Lys Pro Ser Leu Val Ile Asp Tyr
              660   665   670

Leu Lys Thr Glu Lys Lys Leu Phe Trp Pro Lys Ile Lys Lys Val Asn
              675   680   685

Val Gln Val Ser Phe Asn Pro Glu Asn Lys Gln Lys Gly Ile Leu Leu
    690   695   700

Thr Gly Ser Lys Thr Glu Val Leu Lys Ala Val Asp Ile Val Lys Gln
705   710   715   720

Val Trp Asp Ser Val Cys Val Lys Ser Val His Thr Asp Lys Pro Gly
              725   730   735

Ala Lys Gln Phe Phe Gln Asp Lys Ala Arg Phe Tyr Gln Ser Glu Ile
              740   745   750

Lys Arg Leu Phe Gly Cys Tyr Ile Glu Leu Gln Glu Asn Glu Val Met
              755   760   765

Lys Glu Gly Gly Ser Pro Ala Gly Gln Lys Cys Phe Ser Arg Thr Val
    770   775   780

Leu Ala Pro Gly Val Val Leu Ile Val Gln Gln Gly Asp Leu Ala Arg
785   790   795   800

Leu Pro Val Asp Val Val Val Asn Ala Ser Asn Glu Asp Leu Lys His
              805   810   815

Tyr Gly Gly Leu Ala Ala Ala Leu Ser Lys Ala Ala Gly Pro Glu Leu
              820   825   830

Gln Ala Asp Cys Asp Gln Ile Val Lys Arg Glu Gly Arg Leu Leu Pro
              835   840   845

Gly Asn Ala Thr Ile Ser Lys Ala Gly Lys Leu Pro Tyr His His Val
    850   855   860

Ile His Ala Val Gly Pro Arg Trp Ser Gly Tyr Glu Ala Pro Arg Cys
865   870   875   880

Val Tyr Leu Leu Arg Arg Ala Val Gln Leu Ser Leu Cys Leu Ala Glu

                885   890   895

Lys Tyr Lys Tyr Arg Ser Ile Ala Ile Pro Ala Ile Ser Ser Gly Val
        900   905   910

Phe Gly Phe Pro Leu Gly Arg Cys Val Glu Thr Ile Val Ser Ala Ile
        915   920   925

Lys Glu Asn Phe Gln Phe Lys Lys Asp Gly His Cys Leu Lys Glu Ile
    930   935   940

Tyr Leu Val Asp Val Ser Glu Lys Thr Val Gly Pro Leu Gln Met Leu
945   950   955   960

Leu Val Lys Glu Gly Val Gln Asn Ala Lys Thr Asp Val Val Val Asn
                965   970   975

Ser Val Pro Leu Asp Leu Val Leu Ser Arg Gly Pro Leu Ser Lys Ser
            980   985   990

Leu Leu Glu Lys Ala Gly Pro Glu Leu Gln Glu Glu Leu Asp Thr Val
        995   1000   1005

Gly Gln Gly Val Ala Val Ser Met Gly Thr Val Leu Lys Thr Ser
    1010   1015   1020

Ser Trp Asn Leu Asp Cys Arg Tyr Val Leu His Val Val Ala Pro
    1025   1030   1035

Glu Trp Arg Asn Gly Ser Thr Ser Ser Leu Lys Ile Met Glu Asp
    1040   1045   1050

Ile Ile Arg Glu Cys Met Glu Ile Thr Glu Ser Leu Ser Leu Lys
    1055   1060   1065

Ser Ile Ala Phe Pro Ala Ile Gly Thr Gly Asn Leu Gly Phe Pro
    1070   1075   1080

Lys Asn Ile Phe Ala Glu Leu Ile Ile Ser Glu Val Phe Lys Phe
    1085   1090   1095

Ser Ser Lys Asn Gln Leu Lys Thr Leu Gln Glu Val His Phe Leu
    1100   1105   1110

Leu His Pro Ser Asp His Glu Asn Ile Gln Ala Phe Ser Asp Glu
    1115   1120   1125

```
Phe  Ala  Arg  Arg  Ala  Asn  Gly  Asn  Leu  Val  Ser  Asp  Lys  Ile  Pro
     1130                1135                1140

Lys  Ala  Lys  Asp  Thr  Gln  Gly  Phe  Tyr  Gly  Thr  Val  Ser  Ser  Pro
     1145                1150                1155

Asp  Ser  Gly  Val  Tyr  Glu  Met  Lys  Ile  Gly  Ser  Ile  Ile  Phe  Gln
     1160                1165                1170

Val  Ala  Ser  Gly  Asp  Ile  Thr  Lys  Glu  Glu  Ala  Asp  Val  Ile  Val
     1175                1180                1185

Asn  Ser  Thr  Ser  Asn  Ser  Phe  Asn  Leu  Lys  Ala  Gly  Val  Ser  Lys
     1190                1195                1200

Ala  Ile  Leu  Glu  Cys  Ala  Gly  Gln  Asn  Val  Glu  Arg  Glu  Cys  Ser
     1205                1210                1215

Gln  Gln  Ala  Gln  Gln  Arg  Lys  Asn  Asp  Tyr  Ile  Ile  Thr  Gly  Gly
     1220                1225                1230

Gly  Phe  Leu  Arg  Cys  Lys  Asn  Ile  Ile  His  Val  Ile  Gly  Gly  Asn
     1235                1240                1245

Asp  Val  Lys  Ser  Ser  Val  Ser  Ser  Val  Leu  Gln  Glu  Cys  Glu  Lys
     1250                1255                1260

Lys  Asn  Tyr  Ser  Ser  Ile  Cys  Leu  Pro  Ala  Ile  Gly  Thr  Gly  Asn
     1265                1270                1275

Ala  Lys  Gln  His  Pro  Asp  Lys  Val  Ala  Glu  Ala  Ile  Ile  Asp  Ala
     1280                1285                1290

Ile  Glu  Asp  Phe  Val  Gln  Lys  Gly  Ser  Ala  Gln  Ser  Val  Lys  Lys
     1295                1300                1305

Val  Lys  Val  Val  Ile  Phe  Leu  Pro  Gln  Val  Leu  Asp  Val  Phe  Tyr
     1310                1315                1320

Ala  Asn  Met  Lys  Lys  Arg  Glu  Gly  Thr  Gln  Leu  Ser  Ser  Gln  Gln
     1325                1330                1335

Ser  Val  Met  Ser  Lys  Leu  Ala  Ser  Phe  Leu  Gly  Phe  Ser  Lys  Gln
     1340                1345                1350
```

Ser Pro Gln Lys Lys Asn His Leu Val Leu Glu Lys Lys Thr Glu
    1355   1360   1365

Ser Ala Thr Phe Arg Val Cys Gly Glu Asn Val Thr Cys Val Glu
    1370   1375   1380

Tyr Ala Ile Ser Trp Leu Gln Asp Leu Ile Glu Lys Glu Gln Cys
    1385   1390   1395

Pro Tyr Thr Ser Glu Asp Glu Cys Ile Lys Asp Phe Asp Glu Lys
    1400   1405   1410

Glu Tyr Gln Glu Leu Asn Glu Leu Gln Lys Lys Leu Asn Ile Asn
    1415   1420   1425

Ile Ser Leu Asp His Lys Arg Pro Leu Ile Lys Val Leu Gly Ile
    1430   1435   1440

Ser Arg Asp Val Met Gln Ala Arg Asp Glu Ile Glu Ala Met Ile
    1445   1450   1455

Lys Arg Val Arg Leu Ala Lys Glu Gln Glu Ser Arg Ala Asp Cys
    1460   1465   1470

Ile Ser Glu Phe Ile Glu Trp Gln Tyr Asn Asp Asn Asn Thr Ser
    1475   1480   1485

His Cys Phe Asn Lys Met Thr Asn Leu Lys Leu Glu Asp Ala Arg
    1490   1495   1500

Arg Glu Lys Lys Lys Thr Val Asp Val Lys Ile Asn His Arg His
    1505   1510   1515

Tyr Thr Val Asn Leu Asn Thr Tyr Thr Ala Thr Asp Thr Lys Gly
    1520   1525   1530

His Ser Leu Ser Val Gln Arg Leu Thr Lys Ser Lys Val Asp Ile
    1535   1540   1545

Pro Ala His Trp Ser Asp Met Lys Gln Gln Asn Phe Cys Val Val
    1550   1555   1560

Glu Leu Leu Pro Ser Asp Pro Glu Tyr Asn Thr Val Ala Ser Lys
    1565   1570   1575

Phe Asn Gln Thr Cys Ser His Phe Arg Ile Glu Lys Ile Glu Arg
    1580   1585   1590

Ile Gln Asn Pro Asp Leu Trp Asn Ser Tyr Gln Ala Lys Lys Lys
    1595   1600   1605

Thr Met Asp Ala Lys Asn Gly Gln Thr Met Asn Glu Lys Gln Leu
    1610   1615   1620

Phe His Gly Thr Asp Ala Gly Ser Val Pro His Val Asn Arg Asn
    1625   1630   1635

Gly Phe Asn Arg Ser Tyr Ala Gly Lys Asn Ala Val Ala Tyr Gly
    1640   1645   1650

Lys Gly Thr Tyr Phe Ala Val Asn Ala Asn Tyr Ser Ala Asn Asp
    1655   1660   1665

Thr Tyr Ser Arg Pro Asp Ala Asn Gly Arg Lys His Val Tyr Tyr
    1670   1675   1680

Val Arg Val Leu Thr Gly Ile Tyr Thr His Gly Asn His Ser Leu
    1685   1690   1695

Ile Val Pro Pro Ser Lys Asn Pro Gln Asn Pro Thr Asp Leu Tyr
    1700   1705   1710

Asp Thr Val Thr Asp Asn Val His His Pro Ser Leu Phe Val Ala
    1715   1720   1725

Phe Tyr Asp Tyr Gln Ala Tyr Pro Glu Tyr Leu Ile Thr Phe Arg
    1730   1735   1740

Lys

<210>   233
<211>   968
<212>   PRT
<213>   Homo sapien

<400>   233

Asn Ser Leu Ile Tyr Asn Val Ser Asn Tyr Gln Ser Phe Ile Val His
1   5   10   15

Pro Ser Ser Thr Ser Ala Ser Phe Glu Gly Glu Cys Glu Val Arg Gln
              20   25   30

Asp Pro Arg Ser Pro Ser Arg Phe Leu Val Phe Phe Tyr Pro Glu Asp
        35   40   45

Val Arg Gln Lys Val Leu Glu Arg Lys Asn His Glu Leu Val Trp Gln
    50   55   60

Gly Lys Gly Thr Phe Lys Leu Thr Val Gln Leu Pro Ala Thr Pro Asp
65   70   75   80

Glu Ile Asp His Val Phe Glu Glu Glu Leu Leu Thr Lys Glu Ser Lys
                85   90   95

Thr Lys Glu Asp Val Lys Glu Pro Asp Val Ser Glu Glu Leu Asp Thr
                100   105   110

Lys Leu Pro Leu Asp Gly Gly Leu Asp Lys Met Glu Asp Ile Pro Glu
        115   120   125

Glu Cys Glu Asn Ile Ser Ser Leu Val Ala Phe Glu Asn Leu Lys Ala
        130   135   140

Asn Val Thr Asp Ile Met Leu Ile Leu Leu Val Glu Asn Ile Ser Gly
145   150   155   160

Leu Ser Asn Asp Asp Phe Gln Val Glu Ile Ile Arg Asp Phe Asp Val
                165   170   175

Ala Val Val Thr Phe Gln Lys His Ile Asp Thr Ile Arg Phe Val Asp
                180   185   190

Asp Cys Thr Lys His His Ser Ile Lys Gln Leu Gln Leu Ser Pro Arg
        195   200   205

Leu Leu Glu Val Thr Asn Thr Ile Arg Val Glu Asn Leu Pro Pro Gly
    210   215   220

Ala Asp Asp Tyr Ser Leu Lys Leu Phe Phe Glu Asn Pro Tyr Asn Gly
225   230   235   240

Gly Gly Arg Val Ala Asn Val Glu Tyr Phe Pro Glu Glu Ser Ser Ala
                245   250   255

Leu Ile Glu Phe Phe Asp Arg Lys Val Leu Asp Thr Ile Met Ala Thr
                260   265   270

```
Lys Leu Asp Phe Asn Lys Met Pro Leu Ser Val Phe Pro Tyr Tyr Ala
        275             280             285

Ser Leu Gly Thr Ala Leu Tyr Gly Lys Glu Lys Pro Leu Ile Lys Leu
    290             295             300

Pro Ala Pro Phe Glu Glu Ser Leu Asp Leu Pro Leu Trp Lys Phe Leu
305             310             315             320

Gln Lys Lys Asn His Leu Ile Glu Glu Ile Asn Asp Glu Met Arg Arg
                325             330             335

Cys His Cys Glu Leu Thr Trp Ser Gln Leu Ser Gly Lys Val Thr Ile
                340             345             350

Arg Pro Ala Ala Thr Leu Val Asn Glu Gly Arg Pro Arg Ile Lys Thr
    355             360             365

Trp Gln Ala Asp Thr Ser Thr Thr Leu Ser Ser Ile Arg Ser Lys Tyr
    370             375             380

Lys Val Asn Pro Ile Lys Val Asp Pro Thr Met Trp Asp Thr Ile Lys
385             390             395             400

Asn Asp Val Lys Asp Asp Arg Ile Leu Ile Glu Phe Asp Thr Leu Lys
                405             410             415

Glu Met Val Ile Leu Ala Gly Lys Ser Glu Asp Val Gln Ser Ile Glu
                420             425             430

Val Gln Val Arg Glu Leu Ile Glu Ser Thr Thr Gln Lys Ile Lys Arg
        435             440             445

Glu Glu Gln Ser Leu Lys Glu Lys Met Ile Ile Ser Pro Gly Arg Tyr
    450             455             460

Phe Leu Leu Cys His Ser Ser Leu Leu Asp His Leu Leu Thr Glu Cys
465             470             475             480

Pro Glu Ile Glu Ile Cys Tyr Asp Arg Val Thr Gln His Leu Cys Leu
                485             490             495

Lys Gly Pro Ser Ala Asp Val Tyr Lys Ala Lys Cys Glu Ile Gln Glu
            500             505             510
```

```
Lys Val Tyr Thr Met Ala Gln Lys Asn Ile Gln Val Ser Pro Glu Ile
        515                 520                 525

Phe Gln Phe Leu Gln Gln Val Asn Trp Lys Glu Phe Ser Lys Cys Leu
    530                 535                 540

Phe Ile Ala Gln Lys Ile Leu Ala Leu Tyr Glu Leu Glu Gly Thr Thr
545                 550                 555                 560

Val Leu Leu Thr Ser Cys Ser Ser Glu Ala Leu Leu Glu Ala Glu Lys
                565                 570                 575

Gln Met Leu Ser Ala Leu Asn Tyr Lys Arg Ile Glu Val Glu Asn Lys
            580                 585                 590

Glu Val Leu His Gly Lys Lys Trp Lys Gly Leu Thr His Asn Leu Leu
            595                 600                 605

Lys Lys Gln Asn Ser Ser Pro Asn Thr Val Ile Ile Asn Glu Leu Thr
        610                 615                 620

Ser Glu Thr Thr Ala Glu Val Ile Ile Thr Gly Cys Val Lys Glu Val
625                 630                 635                 640

Asn Glu Thr Tyr Lys Leu Leu Phe Asn Phe Val Glu Gln Asn Met Lys
                645                 650                 655

Ile Glu Arg Leu Val Glu Val Lys Pro Ser Leu Val Ile Asp Tyr Leu
            660                 665                 670

Lys Thr Glu Lys Lys Leu Phe Trp Pro Lys Ile Lys Lys Val Asn Val
        675                 680                 685

Gln Val Ser Phe Asn Pro Glu Asn Lys Gln Lys Gly Ile Leu Leu Thr
    690                 695                 700

Gly Ser Lys Thr Glu Val Leu Lys Ala Val Asp Ile Val Lys Gln Val
705                 710                 715                 720

Trp Asp Ser Val Cys Val Lys Ser Val His Thr Asp Lys Pro Gly Ala
                725                 730                 735

Lys Gln Phe Phe Gln Asp Lys Ala Arg Phe Tyr Gln Ser Glu Ile Lys
            740                 745                 750

Arg Leu Phe Gly Cys Tyr Ile Glu Leu Gln Glu Asn Glu Val Met Lys
```

```
                     755                 760                 765

Glu Gly Gly Ser Pro Ala Gly Gln Lys Cys Phe Ser Arg Thr Val Leu
        770             775             780

Ala Pro Gly Val Val Leu Ile Val Gln Gln Gly Asp Leu Ala Arg Leu
785             790             795             800

Pro Val Asp Val Val Val Asn Ala Ser Asn Glu Asp Leu Lys His Tyr
            805             810             815

Gly Gly Leu Ala Ala Ala Leu Ser Lys Ala Ala Gly Pro Glu Leu Gln
            820             825             830

Ala Asp Cys Asp Gln Ile Val Lys Arg Glu Gly Arg Leu Leu Pro Gly
        835             840             845

Asn Ala Thr Ile Ser Lys Ala Gly Lys Leu Pro Tyr His His Val Ile
    850             855             860

His Ala Val Gly Pro Arg Trp Ser Gly Tyr Glu Ala Pro Arg Cys Val
865             870             875             880

Tyr Leu Leu Arg Arg Ala Val Gln Leu Ser Leu Cys Leu Ala Glu Lys
            885             890             895

Tyr Lys Tyr Arg Ser Ile Ala Ile Pro Ala Ile Ser Ser Gly Val Phe
            900             905             910

Gly Phe Pro Leu Gly Arg Cys Val Glu Thr Ile Val Ser Ala Ile Lys
        915             920             925

Glu Asn Phe Gln Phe Lys Lys Asp Gly His Cys Leu Lys Glu Ile Tyr
    930             935             940

Leu Val Asp Val Ser Glu Lys Thr Val Glu Ala Phe Ala Asp Ala Val
945             950             955             960

Gly Glu Arg Gly Cys Ala Glu Cys
            965
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<210> 234
<211> 282
<212> PRT
<213> Homo sapien

<400> 234

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Met Gln Arg Leu Arg Trp Leu Arg Asp Trp Lys Ser Ser Gly Arg Gly
1             5                   10                  15

Leu Thr Ala Ala Lys Glu Pro Gly Ala Arg Ser Ser Pro Leu Gln Ala
            20              25                  30

Met Arg Ile Leu Gln Leu Ile Leu Leu Ala Leu Ala Thr Gly Leu Val
        35                  40              45

Gly Gly Glu Thr Arg Ile Ile Lys Gly Phe Glu Cys Lys Pro His Ser
    50                  55              60

Gln Pro Trp Gln Ala Ala Leu Phe Glu Lys Thr Arg Leu Leu Cys Gly
65              70              75                  80

Ala Thr Leu Ile Ala Pro Arg Trp Leu Leu Thr Ala Ala His Cys Leu
            85                  90                  95

Lys Pro Arg Tyr Ile Val His Leu Gly Gln His Asn Leu Gln Lys Glu
            100             105             110

Glu Gly Cys Glu Gln Thr Arg Thr Ala Thr Glu Ser Phe Pro His Pro
        115                 120             125

Gly Phe Asn Asn Ser Leu Pro Asn Lys Asp His Arg Asn Asp Ile Met
    130                 135             140

Leu Val Lys Met Ala Ser Pro Val Ser Ile Thr Trp Ala Val Arg Pro
145                 150             155             160

Leu Thr Leu Ser Ser Arg Cys Val Thr Ala Gly Thr Ser Cys Leu Ile
            165             170             175

Ser Gly Trp Gly Ser Thr Ser Ser Pro Gln Leu Arg Leu Pro His Thr
        180             185             190

Leu Arg Cys Ala Asn Ile Thr Ile Ile Glu His Gln Lys Cys Glu Asn
        195             200             205

Ala Tyr Pro Gly Asn Ile Thr Asp Thr Met Val Cys Ala Ser Val Gln
    210             215             220

Glu Gly Gly Lys Asp Ser Cys Gln Gly Asp Ser Gly Gly Pro Leu Val
225             230             235             240
```

Cys Asn Gln Ser Leu Gln Gly Ile Ile Ser Trp Gly Gln Asp Pro Cys
                    245   250   .255

Ala Ile Thr Arg Lys Pro Gly Val Tyr Thr Lys Val Cys Lys Tyr Val
            260   265   270

Asp Trp Ile Gln Glu Thr Met Lys Asn Asn
        275   280

<210> 235
<211> 221
<212> PRT
<213> Homo sapien

<400> 235

Arg Gly Trp Lys Gln Ser Asp Val Ser Ser Ser Ser Lys Val Ser Leu
1   5   10   15

Thr Ser Pro Thr His Val Ser Pro Asp Leu Ser Ser Ser Asn Tyr Cys
            20   25   30

Leu Ser His Leu Ser Arg Tyr Ile Val His Leu Gly Gln His Asn Leu
        35   40   45

Gln Lys Glu Glu Gly Cys Glu Gln Thr Arg Thr Ala Thr Glu Ser Phe
    50   55   60

Pro His Pro Gly Phe Asn Asn Ser Leu Pro Asn Lys Asp His Arg Asn
65   70   75   80

Asp Ile Met Leu Val Lys Met Ala Ser Pro Val Ser Ile Thr Trp Ala
                85   90   95

Val Arg Pro Leu Thr Leu Ser Ser Arg Cys Val Thr Ala Gly Thr Ser
            100   105   110

Cys Leu Ile Ser Gly Trp Gly Ser Thr Ser Ser Pro Gln Leu Arg Leu
        115   120   125

Pro His Thr Leu Arg Cys Ala Asn Ile Thr Ile Ile Glu His Gln Lys
    130   135   140

Cys Glu Asn Ala Tyr Pro Gly Asn Ile Thr Asp Thr Met Val Cys Ala
145   150   155   160

Ser Val Gln Glu Gly Gly Lys Asp Ser Cys Gln Gly Asp Ser Gly Gly
            165   170   175

Pro Leu Val Cys Asn Gln Ser Leu Gln Gly Ile Ile Ser Trp Gly Gln
          180   185   190

Asp Pro Cys Ala Ile Thr Arg Lys Pro Gly Val Tyr Thr Lys Val Cys
          195   200   205

Lys Tyr Val Asp Trp Ile Gln Glu Thr Met Lys Asn Asn
    210   215   220

<210> 236
<211> 34
<212> PRT
<213> Homo sapien

<400> 236

Leu Gly Thr Arg Gly His Phe His Glu Ser Pro Arg Lys Pro Gly Val
1   5   10   15

Tyr Thr Lys Val Cys Lys Tyr Val Asp Trp Ile Gln Glu Thr Met Lys
          20   25   30

Asn Asn

<210> 237
<211> 58
<212> PRT
<213> Homo sapien

<400> 237

Ala Arg Tyr Pro Trp Thr Phe Pro Arg Val Thr Pro Lys Ala Trp Cys
1   5   10   15

Leu His Glu Ser Leu Gln Ile Cys Gly Leu Asp Pro Gly Asp Asp Glu
          20   25   30

Glu Gln Leu Asp Trp Thr His Pro Pro Gln Pro Ile Thr Leu His Phe
          35   40   45

His Leu Val Phe Gly Ser Cys Ser Leu Cys
    50   55

<210> 238
<211> 140
<212> PRT
<213> Homo sapien

<400> 238

Gly Pro Gln Glu Leu His His Arg Trp Trp Ser Gly Trp Leu Arg Pro
1   5   10   15

Trp Ser Phe Cys Ala Trp Ile Cys Ile Phe Ile Ala Leu Leu Val Glu
            20   25   30

Thr Pro Arg Pro Val His Pro Ala Lys Thr Pro Gln Ala Ala Cys Gly
        35   40   45

Ser Arg Thr Leu Pro Pro Phe Pro Arg Cys Pro Leu Arg Ala Arg Ala
    50   55   60

Ala Thr Gln Ala Cys Trp Leu Arg Pro Pro Leu Gly Gln Ala Leu Ala
65   70   75   80

Gln Pro Ala Glu Trp Gly Val Val Gly Gln Ser Pro Arg Ser Trp Ala
            85   90   95

Pro Ala Gln Ala His Arg Ala Arg Pro His Pro Ala Ala Pro Arg Thr
        100   105   110

Ala Thr Arg Gly Val Leu Pro Leu Cys Pro Ala Pro Gly Thr Asn Ser
        115   120   125

Met Phe Gly Val Cys Leu Cys Leu Phe Phe Lys Lys
    130   135   140

<210> 239
<211> 151
<212> PRT
<213> Homo sapien

<400> 239

Arg Pro Pro Gly Leu Ser Thr Leu Pro Arg Leu Leu Arg Gln Arg Val
1   5   10   15

Gly Pro Ala Leu Cys Pro His Phe Pro Asp Val Pro Cys Gly Arg Gly
            20   25   30

Gln Pro Pro Lys Pro Ala Gly Cys Gly Pro Leu Ser Ala Arg His Trp
        35   40   45

Leu Ser Pro Leu Ser Gly Gly Ser Trp Ala Ser Pro Arg Gly Ala Gly
    50   55   60

Pro Leu His Arg His Thr Gly Pro Gly His Thr Gln Arg Pro Pro Ala
65   70   75   80

Gln Pro Pro Val Gly Cys Cys Pro Tyr Ala Arg Arg Arg Ala Pro Thr
                85   90   95

Pro Cys Leu Val Phe Val Cys Val Cys Phe Ser Arg Asn Asp Ser Asn
            100   105   110

Cys Cys Leu Asp Phe Glu Ile Tyr Cys Asn Cys Gln Cys Thr Arg Leu
        115   120   125

Asp Pro Val Ser Phe Leu His Gln Phe Gly Lys Asn Ala Ala Leu Ser
    130   135   140

Leu Pro Gln Leu Asn Arg Met
145   150

<210> 240
<211> 402
<212> PRT
<213> Homo sapien

<400> 240

Met Arg Leu Leu Ser Gln Glu Trp Gly Arg Arg Lys Thr Trp Ala Glu
1   5   10   15

Asn Ser Ala Pro Ser Val Cys Pro Pro Ala Pro Pro Gly Leu Glu
                20   25   30

Lys Leu Pro Phe Arg Gly Ser Gln Glu Val Lys Trp Pro Thr Gln Leu
        35   40   45

Leu Cys Arg Gly Arg Pro Gly Thr Ser Phe Ser Phe Ser Val His Leu
    50   55   60

Tyr Thr Phe Pro Leu Phe Ser Leu His Phe Pro Gln Lys Ser Leu Pro
65   70   75   80

Leu Leu Glu Asn Gln Ile Lys Glu Thr His Gln Arg Ile Thr Glu Glu
                85   90   95

Leu Gln Lys Tyr Gly Val Asp Ile Pro Glu Asp Glu Asn Glu Lys Met
            100   105   110

Phe Phe Leu Ile Asp Lys Ile Asn Ala Phe Asn Gln Asp Ile Thr Ala
        115   120   125

Leu Met Gln Gly Glu Glu Thr Val Gly Glu Glu Asp Ile Arg Leu Phe
        130   135   140

Thr Arg Leu Arg His Glu Phe His Lys Trp Ser Thr Ile Ile Glu Asn
145   150   155   160

Asn Phe Gln Glu Gly His Lys Ile Leu Ser Arg Lys Ile Gln Lys Phe
                165   170   175

Glu Asn Gln Tyr Arg Gly Arg Glu Leu Pro Gly Phe Val Asn Tyr Arg
                180   185   190

Thr Phe Glu Thr Ile Val Lys Gln Gln Ile Lys Ala Leu Glu Glu Pro
        195   200   205

Ala Val Asp Met Leu His Thr Val Thr Asp Met Val Arg Leu Ala Phe
        210   215   220

Thr Asp Val Ser Ile Lys Asn Phe Glu Glu Phe Phe Asn Leu His Arg
225   230   235   240

Thr Ala Lys Ser Lys Ile Glu Asp Ile Arg Ala Glu Gln Glu Arg Glu
                245   250   255

Gly Glu Lys Leu Ile Arg Leu His Phe Gln Met Glu Gln Ile Val Tyr
                260   265   270

Cys Gln Asp Gln Val Tyr Arg Gly Ala Leu Gln Lys Val Arg Glu Lys
                275   280   285

Glu Leu Glu Glu Glu Lys Lys Lys Lys Ser Trp Asp Phe Gly Ala Phe
        290   295   300

Gln Ser Ser Ser Ala Thr Asp Ser Ser Met Glu Glu Ile Phe Gln His
305   310   315   320

Leu Met Ala Tyr His Gln Glu Ala Ser Lys Arg Ile Ser Ser His Ile
                325   330   335

Pro Leu Ile Ile Gln Phe Phe Met Leu Gln Thr Tyr Gly Gln Gln Leu
                340   345   350

Gln Lys Ala Met Leu Gln Leu Leu Gln Asp Lys Asp Thr Tyr Ser Trp
        355   360   365

Leu Leu Lys Glu Arg Ser Asp Thr Ser Asp Lys Arg Lys Phe Leu Lys
    370   375   380

Glu Arg Leu Ala Arg Leu Thr Gln Ala Arg Arg Arg Leu Ala Gln Phe
385   390   395   400

Pro Gly

<210> 241
<211> 155
<212> PRT
<213> Homo sapien

<400> 241

Lys Glu Ser Leu Tyr His Lys Lys Val Leu Asp Tyr Val Ile Cys Val
1   5   10   15

Cys Ala Ala Ser Gly Val Leu Phe Pro Asn Pro Arg Ile Gly Asp His
            20   25   30

Phe Asn Gln Phe Gly His Gln Glu Asn Cys Gln Asn Glu Glu Ile Leu
        35   40   45

Asn Ser Leu Lys Tyr Val Arg Pro Gly Gly Gly Tyr Gln Pro Thr Phe
    50   55   60

Thr Leu Val Gln Lys Cys Glu Val Asn Gly Gln Asn Glu His Pro Val
65   70   75   80

Phe Ala Tyr Leu Lys Asp Lys Leu Pro Tyr Pro Tyr Asp Asp Pro Phe
                85   90   95

Ser Leu Met Thr Asp Pro Lys Leu Ile Ile Trp Ser Pro Val Arg Arg
            100   105   110

Ser Asp Val Ala Trp Asn Phe Glu Lys Phe Leu Ile Gly Pro Glu Gly
        115   120   125

Glu Pro Phe Arg Arg Tyr Ser Arg Thr Phe Pro Thr Ile Asn Ile Glu
    130   135   140

Pro Asp Ile Lys Arg Leu Leu Lys Val Ala Ile
145   150   155

<210> 242

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.<211> .133
<212>  PRT
<213>  Homo sapien

<220>
<221>  MISC_FEATURE
<222>  (1)..(4)
<223>  x=any amino acid


<400>  242

Xaa Xaa Xaa Xaa Pro Arg Ile Gly Asp His Phe Asn Gln Phe Gly His
1               5                   10                  15


Gln Glu Asn Cys Gln Asn Glu Glu Ile Leu Asn Ser Leu Lys Tyr Val
            20                  25                  30


Arg Pro Gly Gly Gly Tyr Gln Pro Thr Phe Thr Leu Val Gln Lys Cys
        35                  40                  45


Glu Val Asn Gly Gln Asn Glu His Pro Val Phe Ala Tyr Leu Lys Asp
    50                  55                  60


Lys Leu Pro Tyr Pro Tyr Asp Asp Pro Phe Ser Leu Met Thr Asp Pro
65                  70                  75                  80


Lys Leu Ile Ile Trp Ser Pro Val Arg Arg Ser Asp Val Ala Trp Asn
                85                  90                  95


Phe Glu Lys Phe Leu Ile Gly Pro Glu Gly Glu Pro Phe Arg Arg Tyr
            100                 105                 110


Ser Arg Thr Phe Pro Thr Ile Asn Ile Glu Pro Asp Ile Lys Arg Leu
        115                 120                 125


Leu Lys Val Ala Ile
    130


<210>  243
<211>  126
<212>  PRT
<213>  Homo sapien

<400>  243

Met Thr Ser Val Pro Ser Ala Trp Met Gly Glu Asn Cys Gln Asn Glu
1               5                   10                  15


Glu Ile Leu Asn Ser Leu Lys Tyr Val Arg Pro Gly Gly Gly Tyr Gln
            20                  25                  30
```

Pro Thr Phe Thr Leu Val Gln Lys Cys Glu Val Asn Gly Gln Asn Glu
        35   40   45

His Pro Val Phe Ala Tyr Leu Lys Asp Lys Leu Pro Tyr Pro Tyr Asp
    50   55   60

Asp Pro Phe Ser Leu Met Thr Asp Pro Lys Leu Ile Ile Trp Ser Pro
65   70   75   80

Val Arg Arg Ser Asp Val Ala Trp Asn Phe Glu Lys Phe Leu Ile Gly
            85   90   95

Pro Glu Gly Glu Pro Phe Arg Arg Tyr Ser Arg Thr Phe Pro Thr Ile
            100   105   110

Asn Ile Glu Pro Asp Ile Lys Arg Leu Leu Lys Val Ala Ile
        115   120   125

<210>   244
<211>   150
<212>   PRT
<213>   Homo sapien

<400>   244

Met Thr Leu Gly Arg Glu Cys Arg Arg Val Lys Glu Phe His Val Val
1   5   10   15

Asp Leu Ser Leu Pro Pro Pro Thr Val His Ala Leu Cys Leu Phe Pro
            20   25   30

Pro Gln Glu Asn Cys Gln Asn Glu Glu Ile Leu Asn Ser Leu Lys Tyr
        35   40   45

Val Arg Pro Gly Gly Gly Tyr Gln Pro Thr Phe Thr Leu Val Gln Lys
    50   55   60

Cys Glu Val Asn Gly Gln Asn Glu His Pro Val Phe Ala Tyr Leu Lys
65   70   75   80

Asp Lys Leu Pro Tyr Pro Tyr Asp Asp Pro Phe Ser Leu Met Thr Asp
            85   90   95

Pro Lys Leu Ile Ile Trp Ser Pro Val Arg Arg Ser Asp Val Ala Trp
            100   105   110

Asn Phe Glu Lys Phe Leu Ile Gly Pro Glu Gly Glu Pro Phe Arg Arg
        115   120   125

Tyr Ser Arg Thr Phe Pro Thr Ile Asn Ile Glu Pro Asp Ile Lys Arg
    130   135   140

Leu Leu Lys Val Ala Ile
145   150

<210>   245
<211>   186
<212>   PRT
<213>   Homo sapien

<400>   245

Met Glu Ser Gln Glu Pro Thr Glu Ser Ser Gln Asn Gly Lys Gln Tyr
1   5   10   15

Ile Ile Ser Glu Glu Leu Ile Ser Glu Gly Lys Trp Val Lys Leu Glu
            20   25   30

Lys Thr Thr Tyr Met Asp Pro Thr Gly Lys Thr Arg Thr Trp Glu Ser
        35   40   45

Val Lys Arg Thr Thr Arg Lys Glu Gln Thr Ala Asp Gly Val Ala Val
    50   55   60

Ile Pro Val Leu Gln Arg Thr Leu His Tyr Glu Cys Ile Val Leu Val
65   70   75   80

Lys Gln Phe Arg Pro Pro Met Gly Gly Tyr Cys Ile Glu Phe Pro Ala
            85   90   95

Gly Leu Ile Asp Asp Gly Glu Thr Pro Glu Ala Ala Ala Leu Arg Glu
            100   105   110

Leu Glu Glu Glu Thr Gly Tyr Lys Gly Asp Ile Ala Glu Cys Ser Pro
        115   120   125

Ala Val Cys Met Asp Pro Gly Leu Ser Asn Cys Thr Ile His Ile Val
    130   135   140

Thr Val Thr Ile Asn Gly Asp Asp Ala Glu Asn Ala Arg Pro Lys Pro
145   150   155   160

Lys Pro Gly Asp Gly Cys Val Ser Ala Val Met Lys Val Val Trp Leu
            165   170   175

His Tyr Val Ser Trp Asn Leu Leu Leu Val
        180   185

<210> 246
<211> 191
<212> PRT
<213> Homo sapien

<400> 246

Met Leu Leu Ala Asp Gln Gly Gln Ser Trp Lys Glu Glu Val Val Thr
1   5   10   15

Val Glu Thr Trp Gln Glu Gly Ser Leu Lys Ala Ser Cys Leu Tyr Gly
            20   25   30

Gln Leu Pro Lys Phe Gln Asp Gly Asp Leu Thr Leu Tyr Gln Ser Asn
        35   40   45

Thr Ile Leu Arg His Leu Gly Arg Thr Leu Gly Leu Tyr Gly Lys Asp
    50   55   60

Gln Gln Glu Ala Ala Leu Val Asp Met Val Asn Asp Gly Val Glu Asp
65   70   75   80

Leu Arg Cys Lys Tyr Ile Ser Leu Ile Tyr Thr Asn Tyr Glu Ala Gly
                85   90   95

Lys Asp Asp Tyr Val Lys Ala Leu Pro Gly Gln Leu Lys Pro Phe Glu
                100   105   110

Thr Leu Leu Ser Gln Asn Gln Gly Gly Lys Thr Phe Ile Val Gly Asp
        115   120   125

Gln Ile Ser Phe Ala Asp Tyr Asn Leu Leu Asp Leu Leu Leu Ile His
    130   135   140

Glu Val Leu Ala Pro Gly Cys Leu Asp Ala Phe Pro Leu Leu Ser Ala
145   150   155   160

Tyr Val Gly Arg Leu Ser Ala Arg Pro Lys Leu Lys Ala Phe Leu Ala
                165   170   175

Ser Pro Glu Tyr Val Asn Leu Pro Ile Asn Gly Asn Gly Lys Gln
            180   185   190

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<210>  247
<211>  146
<212>  PRT
<213>  Homo sapien

<400>  247

Met Leu Leu Ala Asp Gln Gly Gln Ser Trp Lys Glu Glu Val Val Thr
1               5                   10                  15


Val Glu Thr Trp Gln Glu Gly Ser Leu Lys Ala Ser Cys Leu Tyr Gly
                20                  25                  30


Gln Leu Pro Lys Phe Gln Asp Gly Asp Leu Thr Leu Tyr Gln Ser Asn
        35                  40                  45


Thr Ile Leu Arg His Leu Gly Arg Thr Leu Gly Leu Tyr Gly Lys Asp
    50                  55                  60


Gln Gln Glu Ala Ala Leu Val Asp Met Val Asn Asp Gly Val Glu Asp
65                  70                  75                  80


Leu Arg Cys Lys Tyr Ile Ser Leu Ile Tyr Thr Asn Tyr Glu Ala Gly
                85                  90                  95


Lys Asp Asp Tyr Val Lys Ala Leu Pro Gly Gln Leu Lys Pro Phe Glu
                100                 105                 110


Thr Leu Leu Ser Gln Asn Gln Gly Gly Lys Thr Phe Ile Val Gly Asp
            115                 120                 125


Gln Ile Ser Phe Ala Asp Tyr Lys Leu Arg Thr Arg Arg Tyr Arg Ala
    130                 135                 140


Arg Phe
145


<210>  248
<211>  179
<212>  PRT
<213>  Homo sapien

<220>
<221>  MISC_FEATURE
<222>  (172)..(172)
<223>  x=any amino acid


<400>  248

Arg Ser Arg Thr Gly Arg Val Gly Ala Ala Val Phe Ala Thr Met Pro
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329

1   5   10   15

Pro Tyr Thr Val Val Tyr Phe Pro Val Arg Gly Arg Cys Ala Ala Leu
            20   25   30

Arg Met Leu Leu Ala Asp Gln Gly Gln Ser Trp Lys Glu Glu Val Val
        35   40   45

Thr Val Glu Thr Trp Gln Glu Gly Ser Leu Lys Ala Ser Cys Leu Tyr
        50   55   60

Gly Gln Leu Pro Lys Phe Gln Asp Gly Asp Leu Thr Leu Tyr Gln Ser
65   70   75   80

Asn Thr Ile Leu Arg His Leu Gly Arg Thr Leu Gly Leu Tyr Gly Lys
            85   90   95

Asp Gln Gln Glu Ala Ala Leu Val Asp Met Val Asn Asp Gly Val Glu
            100   105   110

Asp Leu Arg Cys Lys Tyr Ile Ser Leu Ile Tyr Thr Asn Tyr Glu Ala
        115   120   125

Gly Lys Asp Asp Tyr Val Lys Ala Leu Pro Gly Gln Leu Lys Pro Phe
        130   135   140

Glu Thr Leu Leu Ser Gln Asn Gln Gly Gly Lys Thr Phe Ile Val Gly
145   150   155   160

Asp Gln Ile Ser Phe Ala Asp Tyr Lys Leu Arg Xaa Arg Arg Tyr Arg
            165   170   175

Ala Arg Phe

<210>   249
<211>   191
<212>   PRT
<213>   Homo sapien

<400>   249

Met Leu Leu Ala Asp Gln Gly Gln Ser Trp Lys Glu Glu Val Val Thr
1   5   10   15

Val Glu Thr Trp Gln Glu Gly Ser Leu Lys Ala Ser Cys Leu Tyr Gly
            20   25   30

330

```
Gln Leu Pro Lys Phe Gln Asp Gly Asp Leu Thr Leu Tyr Gln Ser Asn
         35                  40                  45

Thr Ile Leu Arg His Leu Gly Arg Thr Leu Gly Leu Tyr Gly Lys Asp
     50                  55                  60

Gln Gln Glu Ala Ala Leu Val Asp Met Val Asn Asp Gly Val Glu Asp
65                  70                  75                  80

Leu Arg Cys Lys Tyr Ile Ser Leu Ile Tyr Thr Asn Tyr Glu Ala Gly
                 85                  90                  95

Lys Asp Asp Tyr Val Lys Ala Leu Pro Gly Gln Leu Lys Pro Phe Glu
             100                 105                 110

Thr Leu Leu Ser Gln Asn Gln Gly Gly Lys Thr Phe Ile Val Gly Asp
         115                 120                 125

Gln Ile Ser Phe Ala Asp Tyr Asn Leu Leu Asp Leu Leu Leu Ile His
     130                 135                 140

Glu Val Leu Ala Pro Gly Cys Leu Asp Ala Phe Pro Leu Leu Ser Ala
145                 150                 155                 160

Tyr Val Gly Arg Leu Ser Ala Arg Pro Lys Leu Lys Ala Phe Leu Ala
                 165                 170                 175

Ser Pro Glu Tyr Val Asn Leu Pro Ile Asn Gly Asn Gly Lys Gln
             180                 185                 190


<210>  250
<211>  236
<212>  PRT
<213>  Homo sapien

<400>  250

Gly Ser Glu Ala Ala Arg Leu Arg Trp Ser Phe Ala Ala Ala Val Phe
1                   5                   10                  15

Ala Thr Thr Asn Phe Ser Leu Phe Ala Thr Met Pro Pro Tyr Thr Val
             20                  25                  30

Val Tyr Phe Pro Val Arg Gly Arg Cys Ala Ala Leu Arg Met Leu Leu
         35                  40                  45

Ala Asp Gln Gly Gln Ser Trp Lys Glu Glu Val Val Thr Val Glu Thr
```

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                50                      55                       60

Trp Gln Glu Gly Ser Leu Lys Ala Ser Cys Leu Tyr Gly Gln Leu Pro
65                  70              75                      80


Lys Phe Gln Asp Gly Asp Leu Thr Leu Tyr Gln Ser Asn Thr Ile Leu
                85                  90                  95


Arg His Leu Gly Arg Thr Leu Gly Leu Tyr Gly Lys Asp Gln Gln Glu
            100                 105                 110


Ala Ala Leu Val Asp Met Val Asn Asp Gly Val Glu Asp Leu Arg Cys
            115                 120                 125


Lys Tyr Ile Ser Leu Ile Tyr Thr Asn Tyr Glu Ala Gly Lys Asp Asp
    130                 135                 140


Tyr Val Lys Ala Leu Pro Gly Gln Leu Lys Pro Phe Glu Thr Leu Leu
145                 150                 155                 160


Ser Gln Asn Gln Gly Gly Lys Thr Phe Ile Val Gly Asp Gln Ile Ser
                165                 170                 175


Phe Ala Asp Tyr Asn Leu Leu Asp Leu Leu Leu Ile His Glu Val Leu
            180                 185                 190


Ala Pro Gly Cys Leu Asp Ala Phe Pro Leu Leu Ser Ala Tyr Val Gly
            195                 200                 205


Arg Leu Ser Ala Arg Pro Lys Leu Lys Ala Phe Leu Ala Ser Pro Glu
    210                 215                 220


Tyr Val Asn Leu Pro Ile Asn Gly Asn Gly Lys Gln
225                 230                 235


<210>   251
<211>   291
<212>   PRT
<213>   Homo sapien

<400>   251

Met Ser Gln Gly Pro Gly Val Pro Thr Gly Ser Gly Arg Tyr Pro Trp
1               5                   10                  15


Val Leu Cys Trp Tyr Cys Leu Val Leu Glu Leu Leu Leu Ala Leu Gly
            20                  25                  30
```

Arg Ala Val Leu Gly Pro Ser Gly Trp Leu Gly Ser Gly Pro Pro Ser
     35   40   45

Gly Glu His Thr Cys Leu Gly Gly Ser Ala Val Gly Pro Phe Ser Ala
     50   55   60

Pro Ser Gln Val Gly Phe Glu Val Leu Pro Gly Ala Ala Cys Leu Gln
65   70   75   80

Gly Pro Pro Val Leu Leu Gly Ser Ala Gly Gly Gln Val Ser Asp Ser
             85   90   95

Arg Gly Phe Leu Ser Ser Pro Pro Cys Arg Pro Thr Pro Trp Ser Ile
             100   105   110

Ser Gln Phe Glu Ala Ala Ala Arg Pro Trp Arg Met Leu Leu Ala Asp
             115   120   125

Gln Gly Gln Ser Trp Lys Glu Glu Val Val Thr Val Glu Thr Trp Gln
             130   135   140

Glu Gly Ser Leu Lys Ala Ser Cys Leu Tyr Gly Gln Leu Pro Lys Phe
145   150   155   160

Gln Asp Gly Asp Leu Thr Leu Tyr Gln Ser Asn Thr Ile Leu Arg His
             165   170   175

Leu Gly Arg Thr Leu Gly Leu Tyr Gly Lys Asp Gln Gln Glu Ala Ala
             180   185   190

Leu Val Asp Met Val Asn Asp Gly Val Glu Asp Leu Arg Cys Lys Tyr
             195   200   205

Ile Ser Leu Ile Tyr Thr Asn Tyr Glu Ala Gly Lys Asp Asp Tyr Val
210   215   220

Lys Ala Leu Pro Gly Gln Leu Lys Pro Phe Glu Thr Leu Leu Ser Gln
225   230   235   240

Asn Gln Gly Gly Lys Thr Phe Ile Val Gly Asp Gln Ile Ser Phe Ala
             245   250   255

Asp Tyr Asn Leu Leu Asp Leu Leu Leu Ile His Glu Val Leu Ala Pro
             260   265   270

```
Gly Cys Leu Asp Ala Phe Arg Pro Ser Ser Arg Pro Ser Trp Pro Pro
        275             280             285

Leu Ser Thr
290


<210>  252
<211>  302
<212>  PRT
<213>  Homo sapien

<400>  252

Asp Pro Gly Val Ala Ala Gly Arg Ala Gly Arg Met Ser Gln Gly Pro
1               5               10              15

Gly Val Pro Thr Gly Ser Gly Arg Tyr Pro Trp Val Leu Cys Trp Tyr
            20              25              30

Cys Leu Val Leu Glu Leu Leu Leu Ala Leu Gly Arg Ala Val Leu Gly
        35              40              45

Pro Ser Gly Trp Leu Gly Ser Gly Pro Pro Ser Gly Glu His Thr Cys
    50              55              60

Leu Gly Gly Ser Ala Val Gly Pro Phe Ser Ala Pro Ser Gln Val Gly
65              70              75              80

Phe Glu Val Leu Pro Gly Ala Ala Cys Leu Gln Gly Pro Pro Val Leu
                85              90              95

Thr Gly Leu Arg Arg Gly Ala Gly Phe Arg Leu Pro Gly Leu Leu Val
            100             105             110

Phe Ala Thr Met Pro Pro Tyr Thr Val Val Tyr Phe Pro Val Arg Gly
            115             120             125

Arg Cys Ala Ala Leu Arg Met Leu Leu Ala Asp Gln Gly Gln Ser Trp
    130             135             140

Lys Glu Glu Val Val Thr Val Glu Thr Trp Gln Glu Gly Ser Leu Lys
145             150             155             160

Ala Ser Cys Leu Tyr Gly Gln Leu Pro Lys Phe Gln Asp Gly Asp Leu
                165             170             175

Thr Leu Tyr Gln Ser Asn Thr Ile Leu Arg His Leu Gly Arg Thr Leu
            180             185             190
```

```
Gly Leu Tyr Gly Lys Asp Gln Gln Glu Ala Ala Leu Val Asp Met Val
        195             200             205

Asn Asp Gly Val Glu Asp Leu Arg Cys Lys Tyr Ile Ser Leu Ile Tyr
    210             215             220

Thr Asn Tyr Glu Ala Gly Lys Asp Asp Tyr Val Lys Ala Leu Pro Gly
225             230             235             240

Gln Leu Lys Pro Phe Glu Thr Leu Leu Ser Gln Asn Gln Gly Gly Lys
            245             250             255

Thr Phe Ile Val Gly Asp Gln Ile Ser Phe Ala Asp Tyr Asn Leu Leu
            260             265             270

Asp Leu Leu Leu Ile His Glu Val Leu Ala Pro Gly Cys Leu Asp Ala
        275             280             285

Phe Arg Pro Ser Ser Arg Pro Ser Trp Pro Pro Leu Ser Thr
    290             295             300
```

<210> 253
<211> 226
<212> PRT
<213> Homo sapien

<400> 253

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Met Ser Gln Gly Pro Gly Val Pro Thr Gly Ser Gly Arg Tyr Pro Trp
1               5               10              15

Val Leu Cys Trp Tyr Cys Leu Val Leu Glu Leu Leu Leu Ala Leu Gly
            20              25              30

Arg Ala Val Leu Gly Pro Ser Gly Trp Leu Gly Ser Gly Pro Pro Ser
        35              40              45

Gly Glu His Thr Cys Leu Gly Gly Ser Ala Val Gly Pro Phe Ser Ala
    50              55              60

Pro Ser Gln Val Gly Phe Glu Val Leu Pro Gly Ala Ala Cys Leu Gln
65              70              75              80

Gly Pro Pro Val Leu Leu Gly Ser Ala Gly Gly Gln Val Ser Asp Ser
            85              90              95
```

Arg Gly Phe Leu Ser Ser Pro Pro Cys Arg Pro Thr Pro Trp Ser Ile
        100   105   110

Ser Gln Phe Glu Ala Ala Ala Arg Pro Trp Arg Met Leu Leu Ala Asp
        115   120   125

Gln Gly Gln Ser Trp Lys Glu Glu Val Val Thr Val Glu Thr Trp Gln
130   135   140

Glu Gly Ser Leu Lys Ala Ser Cys Leu Tyr Gly Gln Leu Pro Lys Phe
145   150   155   160

Gln Asp Gly Asp Leu Thr Leu Tyr Gln Ser Asn Thr Ile Leu Arg His
                165   170   175

Leu Gly Arg Thr Leu Gly Leu Tyr Gly Lys Asp Gln Gln Glu Ala Ala
            180   185   190

Leu Val Asp Met Val Asn Asp Gly Val Glu Asp Leu Arg Cys Lys Tyr
        195   200   205

Ile Ser Leu Ile Tyr Thr Asn Tyr Ala Gln Ala Gln Gly Leu Pro Gly
    210   215   220

Leu Pro
225

<210> 254
<211> 237
<212> PRT
<213> Homo sapien

<400> 254

Asp Pro Gly Val Ala Ala Gly Arg Ala Gly Arg Met Ser Gln Gly Pro
1   5   10   15

Gly Val Pro Thr Gly Ser Gly Arg Tyr Pro Trp Val Leu Cys Trp Tyr
            20   25   30

Cys Leu Val Leu Glu Leu Leu Leu Ala Leu Gly Arg Ala Val Leu Gly
        35   40   45

Pro Ser Gly Trp Leu Gly Ser Gly Pro Pro Ser Gly Glu His Thr Cys
    50   55   60

Leu Gly Gly Ser Ala Val Gly Pro Phe Ser Ala Pro Ser Gln Val Gly
65   70   75   80

Phe Glu Val Leu Pro Gly Ala Ala Cys Leu Gln Gly Pro Pro Val Leu
                85   90   95

Thr Gly Leu Arg Arg Gly Ala Gly Phe Arg Leu Pro Gly Leu Leu Val
            100   105   110

Phe Ala Thr Met Pro Pro Tyr Thr Val Val Tyr Phe Pro Val Arg Gly
        115   120   125

Arg Cys Ala Ala Leu Arg Met Leu Leu Ala Asp Gln Gly Gln Ser Trp
    130   135   140

Lys Glu Glu Val Val Thr Val Glu Thr Trp Gln Glu Gly Ser Leu Lys
145   150   155   160

Ala Ser Cys Leu Tyr Gly Gln Leu Pro Lys Phe Gln Asp Gly Asp Leu
                165   170   175

Thr Leu Tyr Gln Ser Asn Thr Ile Leu Arg His Leu Gly Arg Thr Leu
            180   185   190

Gly Leu Tyr Gly Lys Asp Gln Gln Glu Ala Ala Leu Val Asp Met Val
        195   200   205

Asn Asp Gly Val Glu Asp Leu Arg Cys Lys Tyr Ile Ser Leu Ile Tyr
    210   215   220

Thr Asn Tyr Ala Gln Ala Gln Gly Leu Pro Gly Leu Pro
225   230   235

<210> 255
<211> 129
<212> PRT
<213> Homo sapien

<220>
<221> MISC_FEATURE
<222> (17)..(17)
<223> x=any amino acid

<220>
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<222> (22)..(22)
<223> x=any amino acid

<220>
<221> MISC_FEATURE

<222> (31)..(31)
<223> x=any amino acid

<220>
<221> MISC_FEATURE
<222> (41)..(41)
<223> x=any amino acid

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<400> 255

Ala Gly Leu Pro Gly Arg Gly Gly Gln Ala Lys Val Asn Lys Thr
1   5   10   15

Xaa Arg Gly Gly Cys Xaa His Ala Pro Gly Gly Leu Ile Ala Xaa Ser
              20   25   30

```
Val Glu Ser Ala Pro Arg Tyr Ser Xaa Gly Pro Ala Leu Leu Pro Arg
         35                  40                  45

Gln Pro Leu Lys Asp Ser Xaa Gln Gly Gly Thr Gly Gln Ala Gly Xaa
         50                  55                  60

Arg Xaa Ser Gln Asn Leu Thr Arg Cys Ala Gly Arg Gly Arg Gly Leu
65                  70                  75                  80

Gly Ala Xaa Phe Ala Pro Ser Pro Gly Asn Gly Cys Ala Arg Lys Glu
              85                  90                  95

Tyr Cys Arg His Leu Asn Gly Leu Pro Gly Ile Phe Lys Gln Lys Ala
             100                 105                 110

Lys Xaa Cys Cys Xaa Lys Ser Ile Ala Asp Gln Ala Ser Arg Phe Leu
         115                 120                 125

Xaa
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<210> 256
<211> 134
<212> PRT
<213> Homo sapien

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<223> x=any amino acid

<400> 256

Ala Gly Leu Pro Gly Arg Gly Gly Gly Gln Ala Lys Val Asn Lys Thr
1   5   10   15

Xaa Arg Gly Gly Cys Xaa His Ala Pro Gly Gly Leu Ile Ala Xaa Ser
                20   25   30

Val Glu Ser Ala Pro Arg Xaa Ser Xaa Gly Pro Ala Leu Leu Pro Arg
            35   40   45

Gln Pro Leu Lys Asp Ser Xaa Gln Gly Gly Thr Gly Gln Ala Gly Xaa
    50   55   60

```
Arg Xaa Ser Gln Asn Leu Thr Arg Cys Ala Gly Arg Gly Arg Gly Leu
 65                  70              75                      80


Gly Ala Xaa Phe Ala Pro Ser Pro Gly Asn Gly Cys Ala Arg Lys Glu
                 85                  90                      95


Tyr Cys Arg His Leu Asn Gly Leu Pro Gly Ile Phe Lys Gln Lys Ala
             100                 105             110


Lys Xaa Cys Cys Xaa Lys Ser Ile Ala Asp Gln Ala Ser Arg Phe Leu
         115                 120             125


Xaa Ile Phe Phe Ile Ser
    130
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<210>   257
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<212>   PRT
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<223>  x=any amino acid


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<223>  x=any amino acid


<220>
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<223>  x=any amino acid


<400>  257

Thr Arg Gln Pro Asp Ala Xaa Asp Gly Asp Ser Tyr Asp Pro Tyr Asp
1               5               10              15


Phe Ser Asp Xaa Glu Glu Xaa Asn Ala Ile Lys Xaa Thr Leu Xaa Lys
            20              25              30


Thr Ala Xaa Ser Gln Glu Thr Lys Glu Ser Xaa Xaa Xaa Glu Leu Ser
```

```
                35                        40                        45

Glu Ser Arg Leu Lys Ala Phe Lys Val Xaa Leu Xaa Asp Val Phe Arg
    50                  55                  60

Glu Ala His Ala Gln Ser Ile Gly Met Asn Arg Leu Thr Glu Ser Ile
65                  70              75                      80

Asn Arg Asp Ser Glu Glu Pro Phe Ser Ser Val Glu Ile Gln Ala Ala
                85                  90                  95

Leu Ser Lys Met Gln Asp Asp Asn Gln Val Met Val Ser Glu Gly Ile
                100             105             110

Ile Trp Xaa Val Gly Gly Gly Val Xaa Xaa Gly Xaa Gly Xaa Cys Xaa
        115                 120             125
```

<210> 258
<211> 120
<212> PRT
<213> Homo sapien

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<223> x=any amino acid

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<223>   x=any amino acid


<220>
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<223>   x=any amino acid


<400>   258

Xaa Xaa Gly Gly Lys Cys Leu Lys Xaa Thr Leu Xaa Lys Thr Ala Xaa
1               5               10              15


Ser Gln Glu Thr Lys Glu Ser Xaa Xaa Xaa Glu Leu Ser Glu Ser Arg
            20              25              30


Leu Lys Ala Phe Lys Val Xaa Leu Xaa Asp Val Phe Arg Glu Ala His
        35              40              45


Ala Gln Ser Ile Gly Met Asn Arg Leu Thr Glu Ser Ile Asn Arg Asp
        50              55              60
```

```
Ser Glu Glu Pro Phe Ser Ser Val Glu Ile Gln Ala Ala Leu Ser Lys
65              70              75              80


Met Gln Asp Asp Asn Gln Val Met Val Ser Glu Gly Ile Ile Trp Xaa
            85              90              95


Val Gly Gly Gly Val Xaa Xaa Gly Xaa Gly Xaa Cys Xaa Glu Ser Leu
        100             105             110


Phe Cys Val Ser His Ala Ser Xaa
        115             120
```

```
<210>   259
<211>   254
<212>   PRT
<213>   Homo sapien

<400>   259

Met Arg Ile Ala Val Ile Cys Phe Cys Leu Leu Gly Ile Thr Cys Ala
1               5               10              15


Ile Pro Val Lys Gln Ala Asp Ser Gly Ser Ser Glu Glu Lys Gln Leu
            20              25              30


Tyr Asn Lys Tyr Pro Asp Ala Val Ala Thr Trp Leu Asn Pro Asp Pro
        35              40              45


Ser Gln Lys Gln Asn Leu Leu Ala Pro Gln Asn Ala Val Ser Ser Glu
    50              55              60


Glu Thr Asn Asp Phe Lys Gln Glu Thr Leu Pro Ser Lys Ser Asn Glu
65              70              75              80


Ser His Asp His Met Asp Asp Met Asp Asp Glu Asp Asp Asp His
            85              90              95


Val Asp Ser Gln Asp Ser Ile Asp Ser Asn Asp Ser Asp Asp Val Asp
            100             105             110


Asp Thr Asp Asp Ser His Gln Ser Asp Glu Ser His His Ser Asp Glu
        115             120             125


Ser Asp Glu Leu Val Thr Asp Phe Pro Thr Asp Leu Pro Ala Thr Glu
    130             135             140
```

```
Val Phe Thr Pro Val Val Pro Thr Val Asp Thr Tyr Asp Gly Arg Gly
145             150             155             160

Asp Ser Val Val Met Asp Leu Arg Ser Lys Ser Lys Lys Leu Arg Arg
                165             170             175

Pro Glu Tyr Ser Thr Leu Met Leu Gln Thr Arg Thr Ser Ala His Asn
            180             185             190

Gly Lys Arg Gly Val Asp Met Val His Thr Arg Ala Pro Arg Gly Gln
        195             200             205

Thr Asp Thr Ala Pro Arg Ala Ala Gly His Ala Asn Thr Lys Ser Ser
    210             215             220

Ala Asp Gln Pro Asn Arg Asp Arg His Lys Thr Ala Asp Glu Lys Glu
225             230             235             240

Pro Glu Asp Glu Thr Gln Arg Ser Ala Thr Glu Gly His Lys
                245             250
```

<210> 260
<211> 212
<212> PRT
<213> Homo sapien

<400> 260

```
Ala Ser Leu Val Thr Ser Ser Asn Tyr Ile Ser Arg Lys Leu Glu Glu
1               5               10              15

Glu Ala Glu His Ser Ile Val Gly Thr Arg Leu Val Ser Gly Gln Leu
                20              25              30

Gln Pro Ser Gln Pro Asn Ala Asp Gln Gly Lys Leu Thr Thr Met Arg
            35              40              45

Ile Ala Val Ile Cys Phe Cys Leu Leu Gly Ile Thr Cys Ala Ile Pro
    50              55              60

Val Lys Gln Ala Asp Ser Gly Ser Ser Glu Glu Lys Gln Leu Tyr Asn
65              70              75              80

Lys Tyr Pro Asp Ala Val Ala Thr Trp Leu Asn Pro Asp Pro Ser Gln
                85              90              95

Lys Gln Asn Leu Leu Ala Pro Gln Asn Ala Val Ser Ser Glu Glu Thr
            100             105             110
```

```
Asn Asp Phe Lys Gln Glu Thr Leu Pro Ser Lys Ser Asn Glu Ser His
        115             120             125

Asp His Met Asp Asp Met Asp Asp Glu Asp Asp Asp His Val Asp
    130             135             140

Ser Gln Asp Ser Ile Asp Ser Asn Asp Ser Asp Asp Val Asp Asp Thr
145             150             155             160

Asp Asp Ser His Gln Ser Asp Glu Ser His His Ser Asp Glu Ser Asp
                165             170             175

Glu Leu Val Thr Asp Phe Pro Thr Asp Leu Pro Ala Thr Glu Val Phe
            180             185             190

Thr Pro Val Val Pro Thr Val Asp Thr Tyr Asp Gly Arg Gly Asp Ser
        195             200             205

Val Val Met Asp
    210
```

```
<210>  261
<211>  240
<212>  PRT
<213>  Homo sapien

<400>  261
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```
Met Arg Ile Ala Val Ile Cys Phe Cys Leu Leu Gly Ile Thr Cys Ala
1               5               10              15

Ile Pro Val Lys Gln Ala Asp Ser Gly Ser Ser Glu Glu Lys Gln Leu
            20              25              30

Tyr Asn Lys Tyr Pro Asp Ala Val Ala Thr Trp Leu Asn Pro Asp Pro
        35              40              45

Ser Gln Lys Gln Asn Leu Leu Ala Pro Gln Thr Leu Pro Ser Lys Ser
    50              55              60

Asn Glu Ser His Asp His Met Asp Asp Met Asp Asp Glu Asp Asp Asp
65              70              75              80

Asp His Val Asp Ser Gln Asp Ser Ile Asp Ser Asn Asp Ser Asp Asp
                85              90              95
```

Val Asp Asp Thr Asp Asp Ser His Gln Ser Asp Glu Ser His His Ser
        100   105   110

Asp Glu Ser Asp Glu Leu Val Thr Asp Phe Pro Thr Asp Leu Pro Ala
        115   120   125

Thr Glu Val Phe Thr Pro Val Val Pro Thr Val Asp Thr Tyr Asp Gly
    130   135   140

Arg Gly Asp Ser Val Val Met Asp Leu Arg Ser Lys Ser Lys Lys Leu
145   150   155   160

Arg Arg Pro Glu Tyr Ser Thr Leu Met Leu Gln Thr Arg Thr Ser Ala
            165   170   175

His Asn Gly Lys Arg Gly Val Asp Met Val His Thr Arg Ala Pro Arg
        180   185   190

Gly Gln Thr Asp Thr Ala Pro Arg Ala Ala Gly His Ala Asn Thr Lys
        195   200   205

Ser Ser Ala Asp Gln Pro Asn Arg Asp Arg His Lys Thr Ala Asp Glu
210   215   220

Lys Glu Pro Glu Asp Glu Thr Gln Arg Ser Ala Thr Glu Gly His Lys
225   230   235   240

<210> 262
<211> 198
<212> PRT
<213> Homo sapien

<400> 262

Ala Ser Leu Val Thr Ser Ser Asn Tyr Ile Ser Arg Lys Leu Glu Glu
1   5   10   15

Glu Ala Glu His Ser Ile Val Gly Thr Arg Leu Val Ser Gly Gln Leu
        20   25   30

Gln Pro Ser Gln Pro Asn Ala Asp Gln Gly Lys Leu Thr Thr Met Arg
        35   40   45

Ile Ala Val Ile Cys Phe Cys Leu Leu Gly Ile Thr Cys Ala Ile Pro
    50   55   60

Val Lys Gln Ala Asp Ser Gly Ser Ser Glu Glu Lys Gln Leu Tyr Asn
65   70   75   80

Lys Tyr Pro Asp Ala Val Ala Thr Trp Leu Asn Pro Asp Pro Ser Gln
            85   90   95

Lys Gln Asn Leu Leu Ala Pro Gln Thr Leu Pro Ser Lys Ser Asn Glu
            100   105   110

Ser His Asp His Met Asp Asp Met Asp Asp Glu Asp Asp Asp His
            115   120   125

Val Asp Ser Gln Asp Ser Ile Asp Ser Asn Asp Ser Asp Asp Val Asp
    130   135   140

Asp Thr Asp Asp Ser His Gln Ser Asp Glu Ser His His Ser Asp Glu
145   150   155   160

Ser Asp Glu Leu Val Thr Asp Phe Pro Thr Asp Leu Pro Ala Thr Glu
            165   170   175

Val Phe Thr Pro Val Val Pro Thr Val Asp Thr Tyr Asp Gly Arg Gly
            180   185   190

Asp Ser Val Val Met Asp
            195

<210> 263
<211> 170
<212> PRT
<213> Homo sapien

<400> 263

Met Asp Asp Met Asp Asp Glu Asp Asp Asp His Val Asp Ser Gln
1   5   10   15

Asp Ser Ile Asp Ser Asn Asp Ser Asp Asp Val Asp Asp Thr Asp Asp
            20   25   30

Ser His Gln Ser Asp Glu Ser His His Ser Asp Glu Ser Asp Glu Leu
        35   40   45

Val Thr Asp Phe Pro Thr Asp Leu Pro Ala Thr Glu Val Phe Thr Pro
    50   55   60

Val Val Pro Thr Val Asp Thr Tyr Asp Gly Arg Gly Asp Ser Val Val
65   70   75   80

```
Met Asp Leu Arg Ser Lys Ser Lys Lys Leu Arg Arg Pro Glu Tyr Ser
                85              90                      95

Thr Leu Met Leu Gln Thr Arg Thr Ser Ala His Asn Gly Lys Arg Gly
            100             105             110

Val Asp Met Val His Thr Arg Ala Pro Arg Gly Gln Thr Asp Thr Ala
        115             120             125

Pro Arg Ala Ala Gly His Ala Asn Thr Lys Ser Ser Ala Asp Gln Pro
    130             135             140

Asn Arg Asp Arg His Lys Thr Ala Asp Glu Lys Glu Pro Glu Asp Glu
145             150             155             160

Thr Gln Arg Ser Ala Thr Glu Gly His Lys
            165             170


<210> 264
<211> 137
<212> PRT
<213> Homo sapien

<400> 264

Ala Ser Pro Val Pro Tyr Gln Leu Asn Arg Leu Ile Leu Glu Val Leu
1               5               10                      15

Arg Asp Pro Ser Gln Lys Gln Asn Leu Leu Ala Pro Gln Asn Ala Val
            20              25              30

Ser Ser Glu Glu Thr Asn Asp Phe Lys Gln Glu Thr Leu Pro Ser Lys
        35              40              45

Ser Asn Glu Ser His Asp His Met Asp Asp Met Asp Asp Glu Asp Asp
    50              55              60

Asp Asp His Val Asp Ser Gln Asp Ser Ile Asp Ser Asn Asp Ser Asp
65              70              75              80

Asp Val Asp Asp Thr Asp Asp Ser His Gln Ser Asp Glu Ser His His
            85              90                      95

Ser Asp Glu Ser Asp Glu Leu Val Thr Asp Phe Pro Thr Asp Leu Pro
            100             105             110

Ala Thr Glu Val Phe Thr Pro Val Val Pro Thr Val Asp Thr Tyr Asp
        115             120             125
```

```
Gly Arg Gly Asp Ser Val Val Met Asp
    130                 135


<210>  265
<211>  156
<212>  PRT
<213>  Homo sapien

<400>  265

Met Val Thr Pro Pro Ser Pro Pro Lys Ser Pro Pro Cys Met Gln Gly
1               5               10              15


Ile Glu Gly Ser Cys Arg Gly Asp Pro Val Arg Pro Ser Ala Ile Cys
            20              25              30


Pro Pro Arg Leu Leu Asp Val Gly Val Gly Met Ser His Pro Pro Ala
        35              40              45


Ala Ser His Gly Thr Ser Gly Thr Pro Glu Leu Pro Thr Trp Arg Leu
    50              55              60


Leu Val Cys Glu Glu Pro Val Val Pro Val Pro Ala Gly Thr Gly Leu
65              70              75              80


Gly Leu Val Arg Pro Trp Gly Leu Arg Leu Val Phe Leu Cys Leu Asp
            85              90              95


Leu His Ile Tyr Cys Ile Ala Gly Arg Asp Pro Gln Ala Cys Pro Pro
            100             105             110


Cys Gln Asp Ser Ser Gly Ser Val Trp Val Pro His Ser Ala Pro Ile
        115             120             125


Ser Pro Met Ser Pro Ala Gly Ala Gly Ser His Pro Ser Leu Leu Ala
    130             135             140


Ala Ala Pro Ser Arg Pro Gly Ile Gly Ser Ala Arg
145             150             155


<210>  266
<211>  195
<212>  PRT
<213>  Homo sapien

<400>  266

Arg Val Leu Pro Val Arg Pro Cys Pro Ala Gln Cys His Leu Pro Pro
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351

```
1                 5                    10                    ·15


     Glu Ala Ala Arg Cys Arg Cys Arg His Val Pro Pro Thr Arg Arg Leu
                  20              25               30


     Pro Arg Thr Ser Gly Thr Pro Glu Leu Pro Thr Trp Arg Leu Leu Val
                  35              40               45


     Cys Glu Glu Pro Val Val Pro Val Pro Ala Gly Thr Gly Leu Gly Leu
          50                  55              60


     Val Arg Pro Gly Val Cys Ala Trp Ser Phe Cys Ala Trp Ile Cys Ile
     65              70               75                    80


     Phe Ile Ala Leu Leu Val Glu Thr Pro Arg Pro Val His Pro Ala Lys
                      85              90               95


     Thr Pro Gln Ala Ala Cys Gly Ser Arg Thr Leu Pro Pro Phe Pro Arg
                  100             105             110


     Cys Pro Leu Arg Ala Arg Ala Ala Thr Gln Ala Cys Trp Leu Arg Pro
                  115             120             125


     Pro Leu Gly Gln Ala Leu Ala Gln Pro Ala Glu Trp Gly Val Val Gly
          130             135             140


     Gln Ser Pro Arg Ser Trp Ala Pro Ala Gln Ala His Arg Ala Arg Pro
     145             150             155             160


     His Pro Ala Ala Pro Arg Thr Ala Thr Arg Gly Val Leu Pro Leu Cys
                  165             170             175


     Pro Ala Pro Gly Thr Asn Ser Met Phe Gly Val Cys Leu Cys Leu Phe
                  180             185             190


     Phe Lys Lys
          195


     <210>   267
     <211>   376
     <212>   PRT
     <213>   Homo sapien

     <400>   267

     Met Ser Ile Leu Lys Ile His Ala Arg Glu Ile Phe Asp Ser Arg Gly
     1               5               10              15
```

Asn Pro Thr Val Glu Val Asp Leu Phe Thr Ser Lys Gly Leu Phe Arg
        20   25   30

Ala Ala Val Pro Ser Gly Ala Ser Thr Gly Ile Tyr Glu Ala Leu Glu
        35   40   45

Leu Arg Asp Asn Asp Lys Thr Arg Tyr Met Gly Lys Gly Val Ser Lys
        50   55   60

Ala Val Glu His Ile Asn Lys Thr Ile Ala Pro Ala Leu Val Ser Lys
65   70   75   80

Lys Leu Asn Val Thr Glu Gln Glu Lys Ile Asp Lys Leu Met Ile Glu
                85   90   95

Met Asp Gly Thr Glu Asn Lys Ser Lys Phe Gly Ala Asn Ala Ile Leu
                100   105   110

Gly Val Ser Leu Ala Val Cys Lys Ala Gly Ala Val Glu Lys Gly Val
        115   120   125

Pro Leu Tyr Arg His Ile Ala Asp Leu Ala Gly Asn Ser Glu Val Ile
        130   135   140

Leu Pro Val Pro Ala Phe Asn Val Ile Asn Gly Gly Ser His Ala Gly
145   150   155   160

Asn Lys Leu Ala Met Gln Glu Phe Met Ile Leu Pro Val Gly Ala Ala
                165   170   175

Asn Phe Arg Glu Ala Met Arg Ile Gly Ala Glu Val Tyr His Asn Leu
                180   185   190

Lys Asn Val Ile Lys Glu Lys Tyr Gly Lys Asp Ala Thr Asn Val Gly
        195   200   205

Asp Glu Gly Gly Phe Ala Pro Asn Ile Leu Glu Asn Lys Glu Gly Leu
        210   215   220

Glu Leu Leu Lys Thr Ala Ile Gly Lys Ala Gly Tyr Thr Asp Lys Val
225   230   235   240

Val Ile Gly Met Asp Val Ala Ala Ser Glu Phe Phe Arg Ser Gly Lys
                245   250   255

```
Tyr Asp Leu Asp Phe Lys Ser Pro Asp Asp Pro Ser Arg Tyr Ile Ser
            260             265             270

Pro Asp Gln Leu Ala Asp Leu Tyr Lys Ser Phe Ile Lys Asp Tyr Pro
        275                 280             285

Val Val Ser Ile Glu Asp Pro Phe Asp Gln Asp Asp Trp Gly Ala Trp
    290                 295             300

Gln Lys Phe Thr Ala Ser Ala Gly Ile Gln Val Val Gly Asp Asp Leu
305             310             315             320

Thr Val Thr Asn Pro Lys Arg Ile Ala Lys Ala Arg Glu Arg Glu Val
            325             330             335

Leu Gln Leu Pro Pro Ala Gln Ser Gln Pro Asp Trp Leu Arg Asp Arg
            340             345             350

Val Ser Ser Gly Val Gln Ala Gly Pro Gly Gln Trp Leu Gly Arg His
        355             360             365

Gly Val Ser Ser Phe Gly Gly Asp
        370             375


<210>  268
<211>  404
<212>  PRT
<213>  Homo sapien

<400>  268

Met Ser Ile Leu Lys Ile His Ala Arg Glu Ile Phe Asp Ser Arg Gly
1               5               10              15

Asn Pro Thr Val Glu Val Asp Leu Phe Thr Ser Lys Gly Leu Phe Arg
            20              25              30

Ala Ala Val Pro Ser Gly Ala Ser Thr Gly Ile Tyr Glu Ala Leu Glu
        35              40              45

Leu Arg Asp Asn Asp Lys Thr Arg Tyr Met Gly Lys Gly Val Ser Lys
    50              55              60

Ala Val Glu His Ile Asn Lys Thr Ile Ala Pro Ala Leu Val Ser Lys
65              70              75              80

Lys Leu Asn Val Thr Glu Gln Glu Lys Ile Asp Lys Leu Met Ile Glu
                85              90              95
```

Met Asp Gly Thr Glu Asn Lys Ser Lys Phe Gly Ala Asn Ala Ile Leu
        100   105   110

Gly Val Ser Leu Ala Val Cys Lys Ala Gly Ala Val Glu Lys Gly Val
        115   120   125

Pro Leu Tyr Arg His Ile Ala Asp Leu Ala Gly Asn Ser Glu Val Ile
        130   135   140

Leu Pro Val Pro Ala Phe Asn Val Ile Asn Gly Gly Ser His Ala Gly
145   150   155   160

Asn Lys Leu Ala Met Gln Glu Phe Met Ile Leu Pro Val Gly Ala Ala
                165   170   175

Asn Phe Arg Glu Ala Met Arg Ile Gly Ala Glu Val Tyr His Asn Leu
            180   185   190

Lys Asn Val Ile Lys Glu Lys Tyr Gly Lys Asp Ala Thr Asn Val Gly
        195   200   205

Asp Glu Gly Gly Phe Ala Pro Asn Ile Leu Glu Asn Lys Glu Gly Leu
        210   215   220

Glu Leu Leu Lys Thr Ala Ile Gly Lys Ala Gly Tyr Thr Asp Lys Val
225   230   235   240

Val Ile Gly Met Asp Val Ala Ala Ser Glu Phe Phe Arg Ser Gly Lys
                245   250   255

Tyr Asp Leu Asp Phe Lys Ser Pro Asp Asp Pro Ser Arg Tyr Ile Ser
            260   265   270

Pro Asp Gln Leu Ala Asp Leu Tyr Lys Ser Phe Ile Lys Asp Tyr Pro
            275   280   285

Val Val Ser Ile Glu Asp Pro Phe Asp Gln Asp Asp Trp Gly Ala Trp
        290   295   300

Gln Lys Phe Thr Ala Ser Ala Gly Ile Gln Val Val Gly Asp Asp Leu
305   310   315   320

Thr Val Thr Asn Pro Lys Arg Ile Ala Lys Ala Arg Glu Arg Glu Val
                325   330   335

Leu Gln Leu Pro Pro Ala Gln Ser Gln Pro Asp Trp Leu Arg Asp Gln
                340   345   350

Leu Ala Asp Leu Tyr Lys Ser Phe Ile Lys Asp Tyr Pro Val Val Ser
                355   360   365

Ile Glu Asp Pro Phe Glu Leu Pro Gly Ala Leu Leu Ala Ala Leu Ala
        370   375   380

Leu Gln Ser Cys Asn Trp Pro Lys Ser Leu Phe Phe Ser Pro His Phe
385   390   395   400

Pro Pro Ser Val

<210> 269
<211> 113
<212> PRT
<213> Homo sapien

<400> 269

Met Thr Thr Ser Gln Lys His Arg Asp Phe Val Ala Glu Pro Met Gly
1   5   10   15

Glu Lys Pro Val Gly Ser Leu Ala Gly Ile Gly Glu Val Leu Gly Lys
                20   25   30

Lys Leu Glu Glu Arg Gly Phe Asp Lys Val Trp Gly Gly Cys Val Tyr
            35   40   45

Leu Val Gln Ala Ala Gly Gly Arg Glu Val Ile Pro Ser Ala Gly Gly
        50   55   60

Trp Thr Val Arg Tyr Asn Leu Lys Arg Leu Pro Glu Pro Gly His Leu
65   70   75   80

Val Glu Arg Arg Gly Gly Gln Asn Pro Arg Cys Phe Leu Gly Leu Cys
                85   90   95

Ala Leu Asn Gly Thr Gly Met Ala Val Leu Leu Leu Ser Leu Thr Glu
                100   105   110

His

<210> 270

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<211>  30
<212>  PRT
<213>  Homo sapien

<400>  270

Thr Arg Gly Ser Thr Asp Ala Trp Val Asp Pro Arg Val Arg Gln Met
1               5               10              15


Thr Asp Leu Val Thr Pro Pro Ala Asn Ile Gln Ser Gly Met
            20              25              30


<210>  271
<211>  66
<212>  PRT
<213>  Homo sapien

<400>  271

Pro Thr Trp Ser Leu Leu Leu Pro Thr Phe Ser Leu Val Cys Glu Ala
1               5               10              15


Cys Val Lys Gln Glu Leu Leu Glu Leu Gln Gly Gln Gly Ala Ile Ile
            20              25              30


Pro Ala Trp Glu Ser Trp Lys Thr Ser Cys Arg Ser Gln Arg Ser Ile
        35              40              45


Leu Thr Leu Lys Met Gly Arg Met Phe Phe Leu Arg Thr Asn Ser Phe
    50              55              60


Val Phe
65


<210>  272
<211>  249
<212>  PRT
<213>  Homo sapien

<400>  272

Met Thr Thr Thr Ile Arg Gln Phe Thr Ser Ser Ser Ser Ile Lys Gly
1               5               10              15


Ser Ser Gly Leu Gly Gly Gly Ser Ser Arg Thr Ser Cys Arg Leu Ser
            20              25              30


Gly Gly Leu Gly Ala Gly Ser Cys Arg Leu Gly Ser Ala Gly Gly Leu
        35              40              45


Gly Ser Thr Leu Gly Gly Ser Ser Tyr Ser Ser Cys Tyr Ser Phe Gly
```

```
            50                      55                      60

Ser Gly Gly Gly Tyr Gly Ser Ser Phe Gly Gly Val Asp Gly Leu Leu
65              70              75              80


Ala Gly Gly Glu Lys Ala Thr Met Gln Asn Leu Asn Asp Arg Leu Ala
            85              90              95


Ser Tyr Leu Asp Lys Val Arg Ala Leu Glu Glu Ala Asn Thr Glu Leu
        100             105             110


Glu Val Lys Ile Arg Asp Trp Tyr Gln Arg Gln Ala Pro Gly Pro Ala
        115             120             125


Arg Asp Tyr Ser Gln Tyr Tyr Arg Thr Ile Glu Glu Leu Gln Asn Lys
    130             135             140


Ile Leu Thr Ala Thr Val Asp Asn Ala Asn Ile Leu Leu Gln Ile Asp
145             150             155             160


Asn Ala Arg Leu Ala Ala Asp Asp Phe Arg Thr Lys Phe Glu Thr Glu
            165             170             175


Gln Gly Leu Arg Leu Ser Val Glu Ala Asp Ile Asn Gly Leu Arg Gln
            180             185             190


Gly Ala Gly Glu Glu Trp Pro Trp Gln Lys Arg Asp Arg Glu Met Arg
        195             200             205


Asn Gly Arg Thr Gln Gly Glu Pro Ala Thr Glu Glu Asn Pro Gly Gly
    210             215             220


Asp Glu Thr Leu Lys Pro Gly Gly Gly Asp Thr Ala Gly Trp Pro Pro
225             230             235             240


Gln Gly Gly Gly Ala Asn Gln Ile Gly
                245


<210>  273
<211>  247
<212>  PRT
<213>  Homo sapien

<220>
<221>  MISC_FEATURE
<222>  (221)..(221)
<223>  x=any amino acid
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<400> 273

Pro Thr Gln Leu Gly Ala Pro Leu Leu Ser Ser Pro Ser Pro Val Cys
1   5   10   15

Leu Pro Pro Ala Ala Ala Thr Met Thr Thr Thr Ile Arg Gln Phe Thr
            20   25   30

Ser Ser Ser Ser Ile Lys Gly Ser Ser Gly Leu Gly Gly Gly Ser Ser
            35   40   45

Arg Thr Ser Cys Arg Leu Ser Gly Gly Leu Gly Ala Gly Ser Cys Arg
    50   55   60

Leu Gly Ser Ala Gly Gly Leu Gly Ser Thr Leu Gly Gly Ser Ser Tyr
65   70   75   80

Ser Ser Cys Tyr Ser Phe Gly Ser Gly Gly Gly Tyr Gly Ser Ser Phe
            85   90   95

Gly Gly Val Asp Gly Leu Leu Ala Gly Gly Glu Lys Ala Thr Met Gln
            100   105   110

Asn Leu Asn Asp Arg Leu Ala Ser Tyr Leu Asp Lys Val Arg Ala Leu
            115   120   125

Glu Glu Ala Asn Thr Glu Leu Glu Val Lys Ile Arg Asp Trp Tyr Gln
130   135   140

Arg Gln Ala Pro Gly Pro Ala Arg Asp Tyr Ser Gln Tyr Tyr Arg Thr
145   150   155   160

Ile Glu Glu Leu Gln Asn Lys Ile Leu Thr Ala Thr Val Asp Asn Ala
                165   170   175

Asn Ile Leu Leu Gln Ile Asp Asn Ala Arg Leu Ala Ala Asp Asp Phe
            180   185   190

Arg Thr Lys Phe Glu Thr Glu Gln Gly Leu Arg Leu Ser Val Glu Ala
            195   200   205

Asp Ile Asn Gly Leu Arg Gln Gly Ala Gly Lys Met Xaa Leu Ala Glu
    210   215   220

Ala Gly Pro Gly Asp Ala Lys Trp Glu Asn Pro Arg Gly Ala Gly Tyr
225   230   235   240

Gly Arg Lys Pro Arg Gly Gly
                245

<210> 274
<211> 156
<212> PRT
<213> Homo sapien

<400> 274

Met Gln Cys Phe Ser Phe Ile Lys Thr Met Met Ile Leu Phe Asn Leu
1   5   10   15

Leu Ile Phe Leu Cys Gly Ala Ala Leu Leu Ala Val Gly Ile Trp Val
            20   25   30

Ser Ile Asp Gly Ala Ser Phe Leu Lys Ile Phe Gly Pro Leu Ser Ser
            35   40   45

Ser Ala Met Gln Phe Val Asn Val Gly Tyr Phe Leu Ile Ala Ala Gly
        50   55   60

Val Val Val Phe Ala Leu Gly Phe Leu Gly Cys Tyr Gly Ala Lys Thr
65   70   75   80

Glu Ser Lys Cys Ala Leu Val Thr Phe Phe Phe Ile Leu Leu Leu Ile
                85   90   95

Phe Ile Ala Glu Val Ala Ala Ala Val Val Ala Leu Val Tyr Thr Thr
            100   105   110

Met Val Arg His Trp Asp Gly Gly Arg Glu Glu Asp Trp Ala Lys Pro
        115   120   125

Trp Glu Trp Ala Val Ala Cys Glu Trp Pro Pro Ser Val Pro Ala Pro
    130   135   140

Lys His Trp Pro Ala Ser Pro Arg Leu Ser Thr Ser
145   150   155

<210> 275
<211> 295
<212> PRT
<213> Homo sapien

<400> 275

Met Gln Phe Val Asn Val Gly Tyr Phe Leu Ile Ala Ala Gly Val Val

360

```
1                     5                     10                    15

       Val Phe Ala Leu Gly Phe Leu Gly Cys Tyr Gly Ala Lys Thr Glu Ser
                20                    25                    30


       Lys Cys Ala Leu Val Thr Val Cys Glu Thr Gln Leu His Arg Leu Met
                35                    40                    45


       Thr Lys Ser Pro Leu Ala Leu Asp Thr Arg Pro Trp Asp Ser Gln Thr
                50                    55                    60


       Leu Leu Trp Thr Pro Leu Gly Ser Gly Phe Cys Leu Thr Phe Pro Gly
       65                    70                    75                    80


       Gly Gly Leu Gly Gln Gly Gly His Glu Gly Leu Ser Leu Pro Lys Thr
                          85                    90                    95


       Gln Thr Pro Val Pro His Ser Phe Phe Phe Ile Leu Leu Leu Ile Phe
                          100                   105                   110


       Ile Ala Glu Val Ala Ala Ala Val Val Ala Leu Val Tyr Thr Thr Met
                115                   120                   125


       Val Arg His Trp Asp Gly Gly Arg Glu Glu Asp Trp Ala Lys Pro Trp
                130                   135                   140


       Glu Trp Ala Val Ala Cys Glu Trp Pro Pro Ser Val Pro Ala Pro Lys
       145                   150                   155                   160


       His Trp Pro Ala Phe Thr Gln Ala Glu His Phe Leu Thr Leu Leu Val
                          165                   170                   175


       Val Pro Ala Ile Lys Lys Asp Tyr Gly Ser Gln Glu Asp Phe Thr Gln
                          180                   185                   190


       Val Trp Asn Thr Thr Met Lys Gly Leu Lys Cys Cys Gly Phe Thr Asn
                          195                   200                   205


       Tyr Thr Asp Phe Glu Asp Ser Pro Tyr Phe Lys Glu Asn Ser Ala Phe
                210                   215                   220


       Pro Pro Phe Cys Cys Asn Asp Asn Val Thr Asn Thr Ala Asn Glu Thr
       225                   230                   235                   240


       Cys Thr Lys Gln Lys Ala His Asp Gln Lys Val Glu Gly Cys Phe Asn
                          245                   250                   255
```

```
Gln Leu Leu Tyr Asp Ile Arg Thr Asn Ala Val Thr Val Gly Gly Val
            260             265             270


Ala Ala Gly Ile Gly Gly Leu Glu Leu Ala Ala Met Ile Val Ser Met
        275             280             285


Tyr Leu Tyr Cys Asn Leu Gln
    290             295
```

```
<210> 276
<211> 207
<212> PRT
<213> Homo sapien

<400> 276
```

```
Pro Leu Ser Pro Gln Leu Cys Gly Ala Ala Leu Leu Ala Val Gly Ile
1               5               10              15


Trp Val Ser Ile Asp Gly Ala Ser Phe Leu Lys Ile Phe Gly Pro Leu
            20              25              30


Ser Ser Ser Ala Met Gln Phe Val Asn Val Gly Tyr Phe Leu Ile Ala
        35              40              45


Ala Gly Val Val Val Phe Ala Leu Gly Phe Leu Gly Cys Tyr Gly Ala
    50              55              60


Lys Thr Glu Ser Lys Cys Ala Leu Val Thr Val Cys Glu Thr Gln Leu
65              70              75              80


His Arg Leu Met Thr Lys Ser Pro Leu Ala Leu Asp Thr Arg Pro Trp
                85              90              95


Asp Ser Gln Thr Leu Leu Trp Thr Pro Leu Gly Ser Gly Phe Cys Leu
            100             105             110


Thr Phe Pro Gly Gly Gly Leu Gly Gln Gly Gly His Glu Gly Leu Ser
        115             120             125


Leu Pro Lys Thr Gln Thr Pro Val Pro His Ser Phe Phe Phe Ile Leu
    130             135             140


Leu Leu Ile Phe Ile Ala Glu Val Ala Ala Ala Val Val Ala Leu Val
145             150             155             160
```

Tyr Thr Thr Met Val Arg His Trp Asp Gly Gly Arg Glu Glu Asp Trp
           165   170   175

Ala Lys Pro Trp Glu Trp Ala Val Ala Cys Glu Trp Pro Pro Ser Val
           180   185   190

Pro Ala Pro Lys His Trp Pro Ala Ser Pro Arg Leu Ser Thr Ser
       195   200   205

<210> 277
<211> 110
<212> PRT
<213> Homo sapien

<400> 277

Gly Arg Leu Leu Leu Leu Asn Ser Arg Pro Arg Arg Leu Lys Gly Leu
1   5   10   15

Lys Cys Cys Gly Phe Thr Asn Tyr Thr Asp Phe Glu Asp Ser Pro Tyr
          20   25   30

Phe Lys Glu Asn Ser Ala Phe Pro Pro Phe Cys Cys Asn Asp Asn Val
     35   40   45

Thr Asn Thr Ala Asn Glu Thr Cys Thr Lys Gln Lys Ala His Asp Gln
    50   55   60

Lys Val Glu Gly Cys Phe Asn Gln Leu Leu Tyr Asp Ile Arg Thr Asn
65   70   75   80

Ala Val Thr Val Gly Gly Val Ala Ala Gly Ile Gly Gly Leu Glu Leu
          85   90   95

Ala Ala Met Ile Val Ser Met Tyr Leu Tyr Cys Asn Leu Gln
          100   105   110

<210> 278
<211> 110
<212> PRT
<213> Homo sapien

<220>
<221> MISC_FEATURE
<222> (14)..(14)
<223> x=any amino acid

<400> 278

Gly Arg Leu Leu Leu Leu Asn Ser Arg Pro Arg Arg Leu Xaa Gly Leu

```
1                    5                    10                   15

Lys Cys Cys Gly Phe Thr Asn Tyr Thr Asp Phe Glu Asp Ser Pro Tyr
            20                  25                  30

Phe Lys Glu Asn Ser Ala Phe Pro Pro Phe Cys Cys Asn Asp Asn Val
        35              40              45

Thr Asn Thr Ala Asn Glu Thr Cys Thr Lys Gln Lys Ala His Asp Gln
        50              55              60

Lys Val Glu Gly Cys Phe Asn Gln Leu Leu Tyr Asp Ile Arg Thr Asn
65              70              75                          80

Ala Val Thr Val Gly Gly Val Ala Ala Gly Ile Gly Gly Leu Glu Leu
                85                  90                  95

Ala Ala Met Ile Val Ser Met Tyr Leu Tyr Cys Asn Leu Gln
            100                 105                 110
```

<210> 279
<211> 156
<212> PRT
<213> Homo sapien

<400> 279

```
Met Gln Cys Phe Ser Phe Ile Lys Thr Met Met Ile Leu Phe Asn Leu
1               5                   10                  15

Leu Ile Phe Leu Cys Gly Ala Ala Leu Leu Ala Val Gly Ile Trp Val
            20                  25                  30

Ser Ile Asp Gly Ala Ser Phe Leu Lys Ile Phe Gly Pro Leu Ser Ser
        35              40              45

Ser Ala Met Gln Phe Val Asn Val Gly Tyr Phe Leu Ile Ala Ala Gly
        50              55              60

Val Val Val Phe Ala Leu Gly Phe Leu Gly Cys Tyr Gly Ala Lys Thr
65              70              75                          80

Glu Ser Lys Cys Ala Leu Val Thr Phe Phe Phe Ile Leu Leu Leu Ile
            85                  90                  95

Phe Ile Ala Glu Val Ala Ala Ala Val Val Ala Leu Val Tyr Thr Thr
            100                 105                 110
```

```
Met Val Arg His Trp Asp Gly Gly Arg Glu Glu Asp Trp Ala Lys Pro
    115                 120             125

Trp Glu Trp Ala Val Ala Cys Glu Trp Pro Pro Ser Val Pro Ala Pro
    130                 135             140

Lys His Trp Pro Ala Ser Pro Arg Leu Ser Thr Ser
145             150             155
```

<210> 280
<211> 171
<212> PRT
<213> Homo sapien

<400> 280

```
Met Leu Glu Arg Arg Ile Val Met Asp Ala Trp Ser Arg Pro Arg Tyr
1           5               10              15

Cys Phe Gly Leu Val Tyr Tyr Val Leu Val Gly Leu Thr Val Leu Ser
            20              25              30

Gln Val Pro Met Asp Gly Arg Asn Ala Tyr Ile Thr Gly Lys Asn Leu
        35              40              45

Leu Met Gln Ala Arg Trp Phe His Ile Leu Gly Met Met Met Phe Ile
    50              55              60

Trp Ser Ser Ala His Gln Tyr Lys Cys His Val Ile Leu Gly Asn Leu
65              70              75              80

Arg Lys Asn Lys Ala Gly Val Val Ile His Cys Asn His Arg Ile Pro
            85              90              95

Phe Gly Asp Trp Phe Glu Tyr Val Ser Ser Pro Asn Tyr Leu Ala Glu
            100             105             110

Leu Met Ile Tyr Val Ser Met Ala Val Thr Phe Gly Phe His Asn Leu
    115             120             125

Thr Trp Trp Leu Val Val Thr Asn Val Phe Phe Asn Gln Ala Leu Ser
    130             135             140

Ala Phe Leu Ser His Gln Phe Tyr Lys Ser Lys Phe Val Ser Tyr Pro
145             150             155             160

Lys His Arg Lys Ala Phe Leu Pro Phe Leu Phe
```

<210> 281
<211> 101
<212> PRT
<213> Homo sapien

<400> 281

Met Ile Thr His Gly Ser Asp Thr Gly Lys Lys Arg Ile Arg Arg Gly
1   5   10   15

Gly Asn Ile Leu Val Ala Lys Glu His Pro Arg Thr Ile Arg Ala Val
            20   25   30

Gly Ala Pro Asn Asn Val Val Gly Asp Thr Asp His Pro His Arg Arg
        35   40   45

Asp Tyr Ile Arg Ala Pro Leu Glu Pro Arg Thr Ile Met Gln Ile Leu
    50   55   60

Arg Arg Gly Tyr Cys Gly Arg Leu Asn Arg Gln Ala Ala Ser Asn Gly
65   70   75   80

Asp Pro Ala Gly Arg Arg Leu Gly Asp Ser Gly Lys Arg Arg Leu Ser
            85   90   95

His Leu Phe Ser Arg
            100

<210> 282
<211> 120
<212> PRT
<213> Homo sapien

<400> 282

Ile Lys Ser Glu Thr Ser Thr Thr Ser Leu Lys Trp Ala Glu Ser Leu
1   5   10   15

Leu Leu Thr Leu Asp Leu Glu Lys Pro Val Ser Leu Leu Leu Ser Val
            20   25   30

Thr Asn Leu Tyr Ser Lys Asn Ser Ala Gln Phe Ser Thr Ile Leu Gln
        35   40   45

Thr Leu Ser Phe Pro Ala Thr Phe Thr Pro Ser Pro Ser Ile Pro Leu
    50   55   60

```
Ser Ser Ala Tyr Phe Phe Phe Phe Ser Asp Arg Val Ser Leu Cys Arg
65              70              75                  80


Pro Gly Arg Ser Ala Val Ala Gln Ser Trp Ala His Cys Ser Leu Asn
            85              90                  95


Leu Pro Gly Ser Ser Asp Ser Pro Ala Ser Ala Pro Gln Val Ala Gly
            100             105             110


Thr Thr Ser Ala His His His Ala
        115             120
```

```
<210>  283
<211>  386
<212>  PRT
<213>  Homo sapien

<400>  283
```

```
Asn Leu Asp Trp Ala Gly Pro Leu Leu Cys His Leu Lys Gly Leu Gly
1               5               10                  15


His Ala Ser Leu Ser Ser Trp Glu Thr Leu Thr Gly Ser Leu Gly Ser
            20              25                  30


Gln Ser Ile Lys Trp Arg Arg Phe Leu Pro Ser Glu Pro Thr Leu Leu
        35              40                  45


Gly Phe Ser Gly Gln Ile Ser Pro Gly Pro Gly Ser Ala Arg Arg Gly
    50              55                  60


Thr Gly Pro Pro Ser Ala Ser Asp Leu Arg Ala Pro Gly His Ser Pro
65              70              75                  80


Gly His Ser Pro Ala His Leu Pro Arg Pro Arg Pro Pro Arg Ala Pro
            85              90                  95


Ala Gly Ser Ala Pro Ala Ile Cys Pro Thr Gly Arg Ala Pro Ser Trp
            100             105             110


Pro Ala Pro Ala Arg His Asp Arg Cys Pro Pro Leu Ala Phe Leu Thr
            115             120             125


Gln Gly Leu Arg Trp Leu Arg Ser Pro Gly Ser Cys Arg Gln Gly Gln
    130             135             140


Glu Gly Ser Gly Thr Trp Lys Met Arg Pro Leu Ala Gly Gly Leu Leu
145             150             155                 160
```

Lys Val Val Phe Val Val Phe Ala Ser Leu Cys Ala Trp Tyr Ser Gly
            165   170   175

Tyr Leu Leu Ala Glu Leu Ile Pro Asp Ala Pro Leu Ser Ser Ala Ala
            180   185   190

Tyr Ser Ile Arg Ser Ile Gly Glu Arg Pro Val Leu Lys Ala Pro Val
            195   200   205

Pro Lys Arg Gln Lys Cys Asp His Trp Thr Pro Cys Pro Ser Asp Thr
    210   215   220

Tyr Ala Tyr Arg Leu Leu Ser Gly Gly Gly Arg Ser Lys Tyr Ala Lys
225   230   235   240

Ile Cys Phe Glu Asp Asn Leu Leu Met Gly Glu Gln Leu Gly Asn Val
            245   250   255

Ala Arg Gly Ile Asn Ile Ala Ile Val Asn Tyr Val Thr Gly Asn Val
            260   265   270

Thr Ala Thr Arg Cys Phe Asp Met Tyr Glu Gly Asp Asn Ser Gly Pro
            275   280   285

Met Thr Lys Phe Ile Gln Ser Ala Ala Pro Lys Ser Leu Leu Phe Met
    290   295   300

Val Thr Tyr Asp Asp Gly Ser Thr Arg Leu Asn Asn Asp Ala Lys Asn
305   310   315   320

Ala Ile Glu Ala Leu Gly Ser Lys Glu Ile Arg Asn Met Lys Phe Arg
            325   330   335

Ser Ser Trp Val Phe Ile Ala Ala Lys Gly Leu Glu Leu Pro Ser Glu
            340   345   350

Ile Gln Arg Glu Lys Ile Asn His Ser Asp Ala Lys Asn Asn Arg Tyr
            355   360   365

Ser Gly Trp Pro Ala Glu Ile Gln Ile Glu Gly Cys Ile Pro Lys Glu
    370   375   380

Arg Ser
385

<210> 284
<211> 296
<212> PRT
<213> Homo sapien

<400> 284

Asn Leu Asp Trp Ala Gly Pro Leu Leu Cys His Leu Lys Gly Leu Gly
1   5   10   15

His Ala Ser Leu Ser Ser Trp Glu Thr Leu Thr Gly Ser Leu Gly Ser
            20   25   30

Gln Ser Ile Lys Trp Arg Arg Phe Leu Pro Ser Glu Pro Thr Leu Leu
        35   40   45

Gly Phe Ser Gly Gln Ile Ser Pro Gly Pro Gly Ser Ala Arg Arg Gly
    50   55   60

Thr Gly Pro Pro Ser Ala Ser Asp Leu Arg Ala Pro Gly His Ser Pro
65   70   75   80

Gly His Ser Pro Ala His Leu Pro Arg Pro Arg Pro Pro Arg Ala Pro
                85   90   95

Ala Gly Ser Ala Pro Ala Ile Cys Pro Thr Gly Arg Ala Pro Ser Trp
            100   105   110

Pro Ala Pro Ala Arg His Asp Arg Cys Pro Pro Leu Ala Phe Leu Thr
            115   120   125

Gln Gly Leu Arg Trp Leu Arg Ser Pro Gly Ser Cys Arg Gln Gly Gln
    130   135   140

Glu Gly Ser Gly Thr Trp Lys Met Arg Pro Leu Ala Gly Gly Leu Leu
145   150   155   160

Lys Val Val Phe Val Val Phe Ala Ser Leu Cys Ala Trp Tyr Ser Gly
                165   170   175

Tyr Leu Leu Ala Glu Leu Ile Pro Asp Ala Pro Leu Ser Ser Ala Ala
            180   185   190

Tyr Ser Ile Arg Ser Ile Gly Glu Arg Pro Val Leu Lys Ala Pro Val
        195   200   205

Pro Lys Arg Gln Lys Cys Asp His Trp Thr Pro Cys Pro Ser Asp Thr

```
              210                     215                          220


        Tyr Ala Tyr Arg Leu Leu Ser Gly Gly Gly Arg Ser Lys Tyr Ala Lys
        225               230               235               240


        Ile Cys Phe Glu Asp Asn Leu Leu Met Gly Glu Gln Leu Gly Asn Val
                        245               250               255


        Ala Arg Gly Ile Asn Ile Ala Ile Val Asn Tyr Val Thr Gly Asn Val
                        260               265               270


        Thr Ala Thr Arg Cys Phe Asp Met Tyr Glu Gly Val Phe Leu Asp Gly
                        275               280               285


        Leu Ser Phe Leu Gly Thr Asp Ser
            290               295



        <210>  285
        <211>  338
        <212>  PRT
        <213>  Homo sapien


        <400>  285

        Asn Leu Asp Trp Ala Gly Pro Leu Leu Cys His Leu Lys Gly Leu Gly
        1               5               10              15


        His Ala Ser Leu Ser Ser Trp Glu Thr Leu Thr Gly Ser Leu Gly Ser
                        20              25              30


        Gln Ser Ile Lys Trp Arg Arg Phe Leu Pro Ser Glu Pro Thr Leu Leu
                    35              40              45


        Gly Phe Ser Gly Gln Ile Ser Pro Gly Pro Gly Ser Ala Arg Arg Gly
            50              55              60


        Thr Gly Pro Pro Ser Ala Ser Asp Leu Arg Ala Pro Gly His Ser Pro
        65              70              75              80


        Gly His Ser Pro Ala His Leu Pro Arg Pro Arg Pro Pro Arg Ala Pro
                        85              90              95


        Ala Gly Ser Ala Pro Ala Ile Cys Pro Thr Gly Arg Ala Pro Ser Trp
                        100             105             110


        Pro Ala Pro Ala Arg His Asp Arg Cys Pro Pro Leu Ala Phe Leu Thr
                    115             120             125
```

```
Gln Gly Leu Arg Trp Leu Arg Ser Pro Gly Ser Cys Arg Gln Gly Gln
    130             135             140

Glu Gly Ser Gly Thr Trp Lys Met Arg Pro Leu Ala Gly Ala Pro Val
145             150             155             160

Pro Lys Arg Gln Lys Cys Asp His Trp Thr Pro Cys Pro Ser Asp Thr
            165             170             175

Tyr Ala Tyr Arg Leu Leu Ser Gly Gly Gly Arg Ser Lys Tyr Ala Lys
            180             185             190

Ile Cys Phe Glu Asp Asn Leu Leu Met Gly Glu Gln Leu Gly Asn Val
        195             200             205

Ala Arg Gly Ile Asn Ile Ala Ile Val Asn Tyr Val Thr Gly Asn Val
    210             215             220

Thr Ala Thr Arg Cys Phe Asp Met Tyr Glu Gly Asp Asn Ser Gly Pro
225             230             235             240

Met Thr Lys Phe Ile Gln Ser Ala Ala Pro Lys Ser Leu Leu Phe Met
            245             250             255

Val Thr Tyr Asp Asp Gly Ser Thr Arg Leu Asn Asn Asp Ala Lys Asn
            260             265             270

Ala Ile Glu Ala Leu Gly Ser Lys Glu Ile Arg Asn Met Lys Phe Arg
        275             280             285

Ser Ser Trp Val Phe Ile Ala Ala Lys Gly Leu Glu Leu Pro Ser Glu
    290             295             300

Ile Gln Arg Glu Lys Ile Asn His Ser Asp Ala Lys Asn Asn Arg Tyr
305             310             315             320

Ser Gly Trp Pro Ala Glu Ile Gln Ile Glu Gly Cys Ile Pro Lys Glu
            325             330             335

Arg Ser


<210>   286
<211>   173
<212>   PRT
<213>   Homo sapien
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<400> 286

```
Met Arg Pro Leu Ala Gly Gly Leu Leu Lys Val Val Phe Val Val Phe
1               5               10              15

Ala Ser Leu Cys Ala Trp Tyr Ser Gly Tyr Leu Leu Ala Glu Leu Ile
            20              25              30

Pro Asp Ala Pro Leu Ser Ser Ala Ala Tyr Ser Ile Arg Ser Ile Gly
        35              40              45

Glu Arg Pro Val Leu Lys Ala Pro Val Pro Lys Arg Gln Lys Cys Asp
    50              55              60

His Trp Thr Pro Cys Pro Ser Asp Thr Tyr Ala Tyr Arg Leu Leu Ser
65              70              75              80

Gly Gly Gly Arg Ser Lys Tyr Ala Lys Ile Cys Phe Glu Asp Asn Leu
            85              90              95

Leu Met Gly Glu Gln Leu Gly Asn Val Ala Arg Gly Ile Asn Ile Ala
            100             105             110

Ile Val Asn Tyr Val Thr Gly Asn Val Thr Ala Thr Arg Cys Phe Asp
        115             120             125

Met Tyr Glu Gly Gly Lys Lys Ile Phe Ser Val Lys Ile Gln Met Asn
    130             135             140

Phe Lys Gln Lys Ile Lys Ile Lys Lys His Lys Glu Lys Cys Gln Pro
145             150             155             160

Phe Leu Phe Cys Leu Leu Glu Lys Arg Gln Gln Leu Ser
            165             170
```

<210> 287
<211> 133
<212> PRT
<213> Homo sapien

<220>
<221> MISC_FEATURE
<222> (62)..(62)
<223> x=any amino acid

<400> 287

```
Met Asn His Thr Val Gln Thr Phe Phe Ser Pro Val Asn Ser Gly Gln
```

372

```
1                    5                    10                   15
```

Pro Leu Asn Tyr Glu Met Leu Lys Glu Glu His Glu Val Ala Val Pro
　　　　　　 20　　　　　　　　　　　　 25　　　　　　　　　　 30

Gly Val Pro His Asn Pro Ala Leu Pro Thr Ser Thr Val Ile His Ile
　　　　　　 35　　　　　　　　　　 40　　　　　　　　　　 45

Arg Ser Glu Thr Ser Tyr Leu Asp His Arg Ala Met Thr Xaa Asn Phe
　　　　 50　　　　　　　　　　 55　　　　　　　　　　 60

Cys Arg Phe Lys Tyr Pro His Asn Gln Gly Asn Ile Thr Gly Ala Tyr
65　　　　　　　　 70　　　　　　　　　 75　　　　　　　　　 80

Ser Val Lys Ser Arg Asp Arg Lys Met Val Gly Asp Val Thr Gly Ala
　　　　　　 85　　　　　　　　　 90　　　　　　　　　 95

Gln Ala Tyr Ala Ser Thr Ala Lys Cys Leu Asn Ile Trp Ala Leu Ile
　　　　　　 100　　　　　　　　 105　　　　　　　　 110

Leu Gly Ile Leu Met Thr Ile Leu Leu Ile Val Ile Pro Val Leu Ile
　　　　　　 115　　　　　　　　 120　　　　　　　　 125

Phe Gln Ala Tyr Gly
　　　　 130

```
<210> 288
<211> 332
<212> PRT
<213> Homo sapien

<400> 288
```

Met Ala Asn Arg Asp Thr Gly Glu Asn Leu Thr Arg Glu Asn Leu Ser
1　　　　　　 5　　　　　　　　　 10　　　　　　　　　 15

Ser Pro Ala Leu Leu Leu Cys Ala Cys Leu Leu Pro Pro Leu Thr Met
　　　　　　 20　　　　　　　　 25　　　　　　　　 30

Thr Thr Ser Ile Arg Gln Phe Thr Ser Ser Ser Ile Lys Gly Ser
　　　　 35　　　　　　　　 40　　　　　　　　　 45

Ser Gly Leu Gly Gly Gly Ser Ser Arg Thr Ser Cys Arg Leu Ser Gly
　　 50　　　　　　　　 55　　　　　　　　 60

Gly Leu Gly Ala Gly Ser Cys Arg Leu Gly Ser Ala Gly Gly Leu Gly
65　　　　　　　　 70　　　　　　　　　 75　　　　　　　　　 80

Ser Thr Leu Gly Gly Ser Ser Tyr Ser Ser Cys Tyr Ser Phe Gly Ser
                    85   90   95

Gly Gly Gly Tyr Gly Ser Ser Phe Gly Gly Val Asp Gly Leu Leu Ala
             100   105   110

Gly Gly Glu Lys Ala Thr Met Gln Asn Leu Asn Asp Arg Leu Ala Ser
             115   120   125

Tyr Leu Asp Lys Val Arg Ala Leu Glu Glu Ala Asn Thr Glu Leu Glu
    130   135   140

Val Lys Ile Arg Asp Trp Tyr Gln Arg Gln Ala Pro Gly Pro Ala Arg
145   150   155   160

Asp Tyr Ser Gln Tyr Tyr Arg Thr Ile Glu Glu Leu Gln Asn Lys Ile
             165   170   175

Leu Thr Ala Thr Val Asp Asn Ala Asn Ile Leu Leu Gln Ile Asp Asn
             180   185   190

Ala Arg Leu Ala Ala Asp Asp Phe Arg Thr Lys Phe Glu Thr Glu Gln
             195   200   205

Ala Leu Arg Leu Ser Val Glu Ala Asp Ile Asn Gly Leu Arg Arg Val
210   215   220

Leu Asp Glu Leu Thr Leu Ala Arg Ala Asp Leu Glu Met Gln Ile Glu
225   230   235   240

Asn Leu Lys Glu Glu Leu Ala Tyr Leu Lys Lys Asn His Glu Glu Glu
             245   250   255

Met Asn Ala Leu Glu Ala Ser Gly Gly Glu Thr Thr Arg Arg Met Leu
             260   265   270

Leu Ala Gln Gly Asp Glu Arg Ser Gln Lys Gly Arg Leu Lys Lys Gly
             275   280   285

Lys Thr Thr Glu Arg Met Ala Gln Gln Arg Lys Arg Arg Thr Thr Asp
    290   295   300

Gly Lys Lys Asp Arg Asn Ala Arg Gly Glu Thr Gln Asn Ser Gly Lys
305   310   315   320

Glu Pro Ser Gly Leu Phe Cys Tyr Leu Glu Gln Leu
            325   330

<210> 289
<211> 262
<212> PRT
<213> Homo sapien

<220>
<221> MISC_FEATURE
<222> (253)..(253)
<223> x=any amino acid

<220>
<221> MISC_FEATURE
<222> (260)..(260)
<223> x=any amino acid

<400> 289

Gln Arg Tyr Arg Arg Lys Phe Asn Thr Arg Glu Ser Leu Leu Ser Ser
1   5   10   15

Pro Ser Pro Val Cys Leu Pro Pro Ala Ala Ala Thr Met Thr Thr Ser
            20   25   30

Ile Arg Gln Phe Thr Ser Ser Ser Ser Ile Lys Gly Ser Ser Gly Leu
        35   40   45

Gly Gly Gly Ser Ser Arg Thr Ser Cys Arg Leu Ser Gly Gly Leu Gly
    50   55   60

Ala Gly Ser Cys Arg Leu Gly Ser Ala Gly Gly Leu Gly Ser Thr Leu
65   70   75   80

Gly Gly Ser Ser Tyr Ser Ser Cys Tyr Ser Phe Gly Ser Gly Gly Gly
                85   90   95

Tyr Gly Ser Ser Phe Gly Gly Val Asp Gly Leu Leu Ala Gly Gly Glu
            100   105   110

Lys Ala Thr Met Gln Asn Leu Asn Asp Arg Leu Ala Ser Tyr Leu Asp
            115   120   125

Lys Val Arg Ala Leu Glu Glu Ala Asn Thr Glu Leu Glu Val Lys Ile
        130   135   140

Arg Asp Trp Tyr Gln Arg Gln Ala Pro Gly Pro Ala Arg Asp Tyr Ser
145   150   155   160

Gln Tyr Tyr Arg Thr Ile Glu Glu Leu Gln Asn Lys Ile Leu Thr Ala
            165   170   175

Thr Val Asp Asn Ala Asn Ile Leu Leu Gln Ile Asp Asn Ala Arg Leu
            180   185   190

Ala Ala Asp Asp Phe Arg Thr Lys Phe Glu Thr Glu Gln Ala Leu Arg
            195   200   205

Leu Ser Val Glu Ala Asp Ile Asn Gly Leu Arg Arg Val Leu Asp Glu
    210   215   220

Leu Thr Leu Ala Arg Ala Asp Leu Glu Met Gln Ile Glu Lys Pro Gln
225   230   235   240

Gly Gly Ala Gly Leu Pro Glu Glu Glu Pro Arg Gly Xaa Asp Glu Arg
            245   250   255

Pro Gly Gly Xaa Trp Trp
            260

<210> 290
<211> 190
<212> PRT
<213> Homo sapien

<400> 290

Met Tyr Leu Leu His Asn Ser Gln Glu Met Leu Arg Ser Met Val Leu
1   5   10   15

Asn Trp His Leu Leu Gly Leu Ala Glu Tyr Arg Glu Lys Val Glu Thr
            20   25   30

Glu Leu Gln Gly Val Cys Asp Thr Val Leu Gly Leu Leu Asp Ser His
            35   40   45

Leu Ile Lys Glu Ala Gly Asp Ala Glu Ser Arg Val Phe Tyr Leu Lys
    50   55   60

Met Lys Gly Asp Tyr Tyr Arg Tyr Leu Ala Glu Val Ala Thr Gly Asp
65   70   75   80

Asp Lys Lys Arg Ile Ile Asp Ser Ala Arg Ser Ala Tyr Gln Glu Ala
            85   90   95

Met Asp Ile Ser Lys Lys Glu Met Pro Pro Thr Asn Pro Ile Arg Leu
             100   105   110

Gly Leu Ala Leu Asn Phe Ser Val Phe His Tyr Glu Ile Ala Asn Ser
             115   120   125

Pro Glu Glu Ala Ile Ser Leu Ala Lys Thr Thr Phe Asp Glu Ala Met
    130   135   140

Ala Asp Leu His Thr Leu Ser Glu Asp Ser Tyr Lys Asp Ser Thr Leu
145   150   155   160

Ile Met Gln Leu Leu Arg Asp Asn Leu Thr Leu Trp Thr Ala Asp Asn
                 165   170   175

Ala Gly Glu Glu Gly Gly Glu Ala Pro Gln Glu Pro Gln Ser
             180   185   190

<210>   291
<211>   174
<212>   PRT
<213>   Homo sapien

<400>   291

Ile Gly Ile Cys Trp Val Trp Pro Glu Tyr Arg Glu Lys Val Glu Thr
1   5   10   15

Glu Leu Gln Gly Val Cys Asp Thr Val Leu Gly Leu Leu Asp Ser His
             20   25   30

Leu Ile Lys Glu Ala Gly Asp Ala Glu Ser Arg Val Phe Tyr Leu Lys
         35   40   45

Met Lys Gly Asp Tyr Tyr Arg Tyr Leu Ala Glu Val Ala Thr Gly Asp
   · 50   55   60

Asp Lys Lys Arg Ile Ile Asp Ser Ala Arg Ser Ala Tyr Gln Glu Ala
65   70   75   80

Met Asp Ile Ser Lys Lys Glu Met Pro Pro Thr Asn Pro Ile Arg Leu
             85   90   95

Gly Leu Ala Leu Asn Phe Ser Val Phe His Tyr Glu Ile Ala Asn Ser
             100   105   110

Pro Glu Glu Ala Ile Ser Leu Ala Lys Thr Thr Phe Asp Glu Ala Met
    115   120   125

```
Ala Asp Leu His Thr Leu Ser Glu Asp Ser Tyr Lys Asp Ser Thr Leu
    130             135             140

Ile Met Gln Leu Leu Arg Asp Asn Leu Thr Leu Trp Thr Ala Asp Asn
145             150             155             160

Ala Gly Glu Glu Gly Gly Glu Ala Pro Gln Glu Pro Gln Ser
                165             170
```

<210> 292
<211> 241
<212> PRT
<213> Homo sapien

<400> 292

```
Arg Leu Pro Leu Leu His His Pro Cys Leu Thr Ile Ile Phe Pro Pro
1               5               10              15

Lys Ala Val Thr Ser Ser Thr Pro Ile Pro Arg Ala Leu Gly Thr Gln
            20              25              30

Pro Leu Ala Lys Ser Pro Gln Ala Gly Ser Gly Leu Asn Pro Ala Val
        35              40              45

Ser Thr Pro Arg Lys His Thr Asp Val Phe Asn Trp Lys Val Arg Ala
    50              55              60

Gly Ser Asp Lys Leu Gly Ser Phe Pro Ser Leu Ala Val Ala Lys Ile
65              70              75              80

Ile Ile Ile Glu Phe Asn Pro Met Tyr Pro Lys Asp Asn Asp Ile Ala
            85              90              95

Leu Met Lys Leu Gln Phe Pro Leu Thr Phe Ser Gly Thr Val Arg Pro
            100             105             110

Ile Cys Leu Pro Phe Phe Asp Glu Glu Leu Thr Pro Ala Thr Pro Leu
        115             120             125

Trp Ile Ile Gly Trp Gly Phe Thr Lys Gln Asn Gly Gly Lys Met Ser
        130             135             140

Asp Ile Leu Leu Gln Ala Ser Val Gln Val Ile Asp Ser Thr Arg Cys
145             150             155             160
```

378

```
Asn Ala Asp Asp Ala Tyr Gln Gly Glu Val Thr Glu Lys Met Met Cys
              165             170             175

Ala Gly Ile Pro Glu Gly Gly Val Asp Thr Cys Gln Gly Asp Ser Gly
              180             185             190

Gly Pro Leu Met Tyr Gln Ser Asp Gln Trp His Val Val Gly Ile Val
              195             200             205

Ser Trp Gly Tyr Gly Cys Gly Gly Pro Ser Thr Pro Gly Val Tyr Thr
    210             215             220

Lys Val Ser Ala Tyr Leu Asn Trp Ile Tyr Asn Val Trp Lys Ala Glu
225             230             235             240

Leu
```

```
<210>  293
<211>  222
<212>  PRT
<213>  Homo sapien

<400>  293

His Pro Ala Pro Arg Ser Leu Gly Pro Trp Gly Pro Ser Leu Trp Gln
1               5               10              15

Ser Leu Leu Arg Leu Gly Ser Gly Leu Asn Pro Ala Val Ser Thr Pro
              20              25              30

Arg Lys His Thr Asp Val Phe Asn Trp Lys Val Arg Ala Gly Ser Asp
        35              40              45

Lys Leu Gly Ser Phe Pro Ser Leu Ala Val Ala Lys Ile Ile Ile Ile
    50              55              60

Glu Phe Asn Pro Met Tyr Pro Lys Asp Asn Asp Ile Ala Leu Met Lys
65              70              75              80

Leu Gln Phe Pro Leu Thr Phe Ser Gly Thr Val Arg Pro Ile Cys Leu
              85              90              95

Pro Phe Phe Asp Glu Glu Leu Thr Pro Ala Thr Pro Leu Trp Ile Ile
              100             105             110

Gly Trp Gly Phe Thr Lys Gln Asn Gly Gly Lys Met Ser Asp Ile Leu
    115             120             125
```

```
Leu Gln Ala Ser Val Gln Val Ile Asp Ser Thr Arg Cys Asn Ala Asp
    130             135             140

Asp Ala Tyr Gln Gly Glu Val Thr Glu Lys Met Met Cys Ala Gly Ile
145             150             155             160

Pro Glu Gly Gly Val Asp Thr Cys Gln Gly Asp Ser Gly Gly Pro Leu
                165             170             175

Met Tyr Gln Ser Asp Gln Trp His Val Val Gly Ile Val Ser Trp Gly
            180             185             190

Tyr Gly Cys Gly Gly Pro Ser Thr Pro Gly Val Tyr Thr Lys Val Ser
            195             200             205

Ala Tyr Leu Asn Trp Ile Tyr Asn Val Trp Lys Ala Glu Leu
    210             215             220
```

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<210>   294
<211>   218
<212>   PRT
<213>   Homo sapien

<220>
<221>   MISC_FEATURE
<222>   (210)..(210)
<223>   x=any amino acid


<400>   294
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```
Met Ala Val Ala Ser Ala Ala Ala Ala Leu Val Val Ala Leu Gly
1               5               10              15

Glu Asp Met Val Val Ala Leu Val Leu Ala Ser Val Val Ala Trp Val
            20              25              30

Leu Ala Leu Gly Val Asp Gly Leu Leu Ala Gly Gly Glu Lys Ala Thr
    35              40              45

Met Gln Asn Leu Asn Asp Arg Leu Ala Ser Tyr Leu Asp Lys Val Arg
    50              55              60

Ala Leu Glu Glu Ala Asn Thr Glu Leu Glu Val Lys Ile Arg Asp Trp
65              70              75              80

Tyr Gln Arg Gln Ala Pro Gly Pro Ala Arg Asp Tyr Ser Gln Tyr Tyr
            85              90              95
```

```
Arg Thr Ile Glu Glu Leu Gln Asn Lys Ile Leu Thr Ala Thr Val Asp
        100                 105             110

Asn Ala Asn Ile Leu Leu Gln Ile Asp Asn Ala Arg Leu Ala Ala Asp
        115                 120             125

Asp Phe Arg Thr Lys Phe Glu Thr Glu Gln Ala Leu Arg Leu Ser Val
    130                 135             140

Glu Ala Asp Ile Asn Gly Leu Arg Arg Val Leu Asp Glu Leu Thr Leu
145                 150             155             160

Ala Arg Ala Asp Leu Glu Met Gln Ile Glu Asn Leu Lys Gly Gly Ala
            165             170             175

Gly Leu Thr Glu Glu Glu Pro Arg Gly Gly Asp Glu Arg Pro Gly Lys
        180                 185             190

Gln Val Gly Gly Glu Ile Asn Val Glu Lys Asp Ala Ala Pro Gly Leu
        195                 200             205

Asp Xaa Ser Arg Ile Leu Asn Glu Met Arg
    210                 215
```

<210> 295
<211> 303
<212> PRT
<213> Homo sapien

<220>
<221> MISC_FEATURE
<222> (296)..(296)
<223> x=any amino acid

<400> 295

```
Ala Pro Phe Leu Leu Ser Ala Asn Cys Ser Leu Ala His Leu Pro Pro
1               5               10              15

Trp His His Asp His Leu Gln Pro Pro Val His Leu Leu Gln Leu His
        20                  25              30

Glu Gly Leu Leu Arg His Arg Arg Arg His Arg Gly Arg Leu Gln Pro
        35                  40              45

His Leu Leu Arg Pro Gly Arg Arg Val Leu Pro Cys Pro Gln His Leu
    50                  55              60
```

```
Arg Gly Arg Pro Val Cys His Pro Leu Ala Ser Pro Leu Gly Glu Pro
65               70           75           80


Ala Gly Trp Gly Ala Ala Met Ala Val Ala Ser Ala Ala Ala Ala Ala
            85           90           95


Leu Val Val Ala Leu Gly Glu Asp Met Val Val Ala Leu Val Leu Ala
        100          105          110


Ser Val Val Ala Trp Val Leu Ala Leu Gly Val Asp Gly Leu Leu Ala
        115          120          125


Gly Gly Glu Lys Ala Thr Met Gln Asn Leu Asn Asp Arg Leu Ala Ser
    130          135          140


Tyr Leu Asp Lys Val Arg Ala Leu Glu Glu Ala Asn Thr Glu Leu Glu
145          150          155          160


Val Lys Ile Arg Asp Trp Tyr Gln Arg Gln Ala Pro Gly Pro Ala Arg
            165          170          175


Asp Tyr Ser Gln Tyr Tyr Arg Thr Ile Glu Glu Leu Gln Asn Lys Ile
        180          185          190


Leu Thr Ala Thr Val Asp Asn Ala Asn Ile Leu Leu Gln Ile Asp Asn
        195          200          205


Ala Arg Leu Ala Ala Asp Asp Phe Arg Thr Lys Phe Glu Thr Glu Gln
210          215          220


Ala Leu Arg Leu Ser Val Glu Ala Asp Ile Asn Gly Leu Arg Arg Val
225          230          235          240


Leu Asp Glu Leu Thr Leu Ala Arg Ala Asp Leu Glu Met Gln Ile Glu
            245          250          255


Asn Leu Lys Gly Gly Ala Gly Leu Thr Glu Glu Glu Pro Arg Gly Gly
        260          265          270


Asp Glu Arg Pro Gly Ser Arg Trp Val Val Arg Ser Met Trp Arg Arg
        275          280          285


Thr Leu Pro Gln Ala Trp Thr Xaa Ala Ala Ser Ser Thr Arg Cys
    290          295          300
```

```
<210>   296
<211>   103
<212>   PRT
<213>   Homo sapien

<400>   296

Ala Asn Thr Pro His Ser Ser Thr Leu Leu Asn Ala Trp Gly Ser Ala
1               5                   10                  15


His Cys Pro Ser Gln Arg Ala Thr Leu Val Phe Lys Ala His Ile Ser
            20                  25                  30


Leu Gly Tyr Asp Asn Thr Glu Asn Leu Ala Thr Thr Thr Pro Gln Gly
        35                  40                  45


Trp Trp Ser Leu Thr Gly Pro Pro Leu Ala Ser Lys Gly Gly Lys Glu
    50                  55                  60


Thr Pro Gly Ala Asn Gln Pro His Ala Gln Ser Thr Gln Arg Gly Glu
65                  70                  75                  80


Glu Glu Arg Arg Ala Pro His Cys Leu Gly Glu Ser His Leu His Thr
            85                  90                  95


Thr Leu Ser Pro Pro Pro His
            100


<210>   297
<211>   91
<212>   PRT
<213>   Homo sapien

<400>   297

Arg Asp Pro Trp Ser Gln Pro Ala Pro Arg Thr Glu His Thr Lys Arg
1               5                   10                  15


Lys Glu Glu Lys Thr Pro His Cys Trp Gly Gly Pro Cys His His Thr
            20                  25                  30


Gln Ser Pro Thr Thr Leu Asn Leu Pro Ser Ser Gln Leu Pro Cys Arg
        35                  40                  45


Pro Leu Glu Glu Gly Arg Gly Leu Gly Ser Arg Thr Leu Ser Cys Thr
    50                  55                  60


Ile Asn Lys Val Pro Cys Ala Gln Pro Lys Lys Lys Lys Lys Lys Gly
65                  70                  75                  80
```

Gly Val Met Ser Gly Gly Gly Asn Lys Gly Thr
                85   90

<210>   298
<211>   256
<212>   PRT
<213>   Homo sapien

<400>   298

Met Gly Val Asn His Glu Lys Tyr Asp Asn Ser Leu Lys Ile Ile Ser
1   5   10   15

Asn Ala Ser Cys Thr Thr Asn Cys Leu Ala Pro Leu Ala Lys Val Ile
            20   25   30

His Asp Asn Phe Gly Ile Val Glu Gly Leu Met Thr Thr Val His Ala
        35   40   45

Ile Thr Ala Thr Gln Lys Thr Val Asp Gly Pro Ser Gly Lys Leu Trp
    50   55   60

Arg Asp Gly Arg Gly Ala Leu Gln Asn Ile Ile Pro Ala Ser Thr Gly
65   70   75   80

Ala Ala Lys Ala Val Gly Lys Val Ile Pro Glu Leu Asn Gly Lys Leu
            85   90   95

Thr Gly Met Ala Phe Arg Val Pro Thr Ala Asn Val Ser Val Val Asp
            100   105   110

Leu Thr Cys Arg Leu Glu Lys Pro Ala Lys Tyr Asp Asp Ile Lys Lys
        115   120   125

Val Val Lys Gln Ala Ser Glu Gly Pro Leu Lys Gly Ile Leu Gly Tyr
    130   135   140

Thr Glu His Gln Val Val Ser Ser Asp Phe Asn Ser Asp Thr His Ser
145   150   155   160

Ser Thr Phe Asp Ala Gly Ala Gly Ile Ala Leu Asn Asp His Phe Val
            165   170   175

Lys Leu Ile Ser Trp Tyr Asp Asn Glu Phe Gly Tyr Ser Asn Arg Val
            180   185   190

```
Val Asp Leu Met Ala Thr Trp Leu Lys Ser Arg Pro Trp Thr Gln Pro
    195                 200             205


Glu Ser Gln Arg Glu Arg Asp Leu Thr Val Gly Val Leu His Ile Arg
    210                 215             220


Pro Thr Lys Asp Ser Pro Pro Gly Arg Asn Leu Lys Gly Glu Gly Pro
225                 230             235             240


Gly Gly Pro Lys Pro Gly Pro Lys Lys Gly Gly Ile Arg His Pro Pro
                245             250             255
```

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<210>  299
<211>  351
<212>  PRT
<213>  Homo sapien

<220>
<221>  MISC_FEATURE
<222>  (304)..(304)
<223>  x=any amino acid


<220>
<221>  MISC_FEATURE
<222>  (306)..(309)
<223>  x=any amino acid


<220>
<221>  MISC_FEATURE
<222>  (311)..(311)
<223>  x=any amino acid


<220>
<221>  MISC_FEATURE
<222>  (314)..(314)
<223>  x=any amino acid


<220>
<221>  MISC_FEATURE
<222>  (317)..(318)
<223>  x=any amino acid


<220>
<221>  MISC_FEATURE
<222>  (324)..(324)
<223>  x=any amino acid


<400>  299

Leu Arg Leu Arg Tyr Glu Ala Gly Val Gln Ala Glu Asn Gly Lys Leu
1               5               10              15
```

```
Val Ile Asn Gly Asn Pro Ile Thr Ile Phe Gln Glu Arg Asp Pro Ser
        20              25                  30


Lys Ile Lys Trp Gly Asp Ala Gly Ala Glu Tyr Val Val Glu Ser Thr
        35              40                  45


Gly Val Phe Thr Thr Met Glu Lys Ala Gly Ala His Leu Gln Gly Gly
    50              55                  60


Ala Lys Arg Val Ile Ile Ser Ala Pro Ser Ala Asp Ala Pro Met Phe
65              70              75                  80


Val Met Gly Val Asn His Glu Lys Tyr Asp Asn Ser Leu Lys Ile Ile
                85              90                  95


Ser Asn Ala Ser Cys Thr Thr Asn Cys Leu Ala Pro Leu Ala Lys Val
            100             105             110


Ile His Asp Asn Phe Gly Ile Val Glu Gly Leu Met Thr Thr Val His
    115             120             125


Ala Ile Thr Ala Thr Gln Lys Thr Val Asp Gly Pro Ser Gly Lys Leu
    130             135             140


Trp Arg Asp Gly Arg Gly Ala Leu Gln Asn Ile Ile Pro Ala Ser Thr
145             150             155             160


Gly Ala Ala Lys Ala Val Gly Lys Val Ile Pro Glu Leu Asn Gly Lys
            165             170             175


Leu Thr Gly Met Ala Phe Arg Val Pro Thr Ala Asn Val Ser Val Val
            180             185             190


Asp Leu Thr Cys Arg Leu Glu Lys Pro Ala Lys Tyr Asp Asp Ile Lys
        195             200             205


Lys Val Val Lys Gln Ala Ser Glu Gly Pro Leu Lys Gly Ile Leu Gly
        210             215             220


Tyr Thr Glu His Gln Val Val Ser Ser Asp Phe Asn Ser Asp Thr His
225             230             235             240


Ser Ser Thr Phe Asp Ala Gly Ala Gly Ile Ala Leu Asn Asp His Phe
            245             250             255
```

```
Val Lys Leu Ile Ser Trp Tyr Asp Asn Glu Phe Gly Tyr Ser Asn Arg
        260             265             270


Val Val Asp Leu Met Ala Thr Trp Leu Lys Ser Arg Pro Trp Thr Gln
        275             280             285


Pro Glu Ser Gln Arg Glu Arg Asp Ser Leu Trp Glu Pro Ala Ile Xaa
    290             295             300


Pro Xaa Xaa Xaa Xaa Pro Xaa Ala Asp Xaa Lys Gly Xaa Xaa Pro Val
305             310             315             320


Pro Lys Pro Xaa Gln Lys Arg Gly Glu Ser Gly Thr Pro Leu Lys Pro
                325             330             335


Arg Glu Asn Gly Ala Gly Lys Gly Gly Leu Trp Thr His Tyr Gly
        340             345             350
```

<210> 300
<211> 432
<212> PRT
<213> Homo sapien

<400> 300

```
Met Thr Thr Thr Phe Leu Gln Thr Ser Ser Ser Thr Phe Gly Gly Gly
1               5               10              15


Ser Thr Arg Gly Gly Ser Leu Leu Ala Gly Gly Gly Gly Phe Gly Gly
        20              25              30


Gly Ser Leu Ser Gly Gly Gly Gly Ser Arg Ser Ile Ser Ala Ser Ser
        35              40              45


Ala Arg Phe Val Ser Ser Gly Ser Gly Gly Tyr Gly Gly Gly Met
    50              55              60


Arg Val Cys Gly Phe Gly Gly Ala Gly Ser Val Phe Gly Gly Gly
65              70              75              80


Phe Gly Gly Gly Val Gly Gly Gly Phe Gly Gly Phe Gly Gly Gly
                85              90              95


Asp Gly Gly Leu Leu Ser Gly Asn Glu Lys Ile Thr Met Gln Asn Leu
        100             105             110


Asn Asp Arg Leu Ala Ser Tyr Leu Asp Lys Val Arg Ala Leu Glu Glu
```

	115			120		·		125	

Ala Asn Ala Asp Leu Glu Val Lys Ile His Asp Trp Tyr Gln Lys Gln
   130   135   140

Thr Pro Ala Ser Pro Glu Cys Asp Tyr Ser Gln Tyr Phe Lys Thr Ile
145   150   155   160

Glu Glu Leu Arg Asp Lys Ile Met Ala Thr Thr Ile Asp Asn Ser Arg
           165   170   175

Val Ile Leu Glu Ile Asp Asn Ala Arg Leu Ala Ala Asp Asp Phe Arg
          180   185   190

Leu Lys Cys Ala Pro Pro Ser Leu Ser Ser Ser Cys Met Pro Thr Leu
     195   200   205

Leu Gly Leu Leu Leu Ala Leu Thr Gln Ala Ala Lys Thr Pro Pro Thr
   210   215   220

Ser Phe Phe Gly Leu Pro Leu Leu Arg Tyr Glu Asn Glu Leu Ala Leu
225   230   235   240

Arg Gln Gly Val Glu Ala Asp Ile Asn Gly Leu Arg Arg Val Leu Asp
          245   250   255

Glu Leu Thr Leu Ala Arg Thr Asp Leu Glu Met Gln Ile Glu Gly Leu
         260   265   270

Asn Glu Glu Leu Ala Tyr Leu Lys Lys Asn His Glu Glu Glu Met Lys
     275   280   285

Glu Phe Ser Ser Gln Leu Ala Gly Gln Val Asn Val Glu Met Asp Ala
   290   295   300

Ala Pro Gly Val Asp Leu Thr Arg Val Leu Ala Glu Met Arg Glu Gln
305   310   315   320

Tyr Glu Ala Met Ala Glu Lys Asn Arg Arg Asp Val Glu Ala Trp Phe
          325   330   335

Phe Ser Lys Thr Glu Glu Leu Asn Lys Glu Val Ala Ser Asn Thr Glu
          340   345   350

Met Ile Gln Thr Ser Lys Thr Glu Ile Thr Asp Leu Arg Arg Thr Met
          355   360   365

Gln Glu Leu Glu Ile Glu Leu Gln Ser Gln Leu Ser Met Lys Ala Gly
    370   375   380

Leu Glu Asn Ser Leu Ala Glu Thr Glu Cys Arg Tyr Ala Thr Gln Leu
385   390   395   400

Gln Gln Ile Gln Gly Leu Ile Gly Gly Leu Glu Ala Gln Leu Ser Glu
                405   410   415

Leu Arg Cys Glu Met Glu Ala Gln Asn Gln Glu Val Gln Asp Ala Ala
            420   425   430

<210> 301
<211> 360
<212> PRT
<213> Homo sapien

<400> 301

Arg Ser Met Thr Gly Thr Arg Ser Arg Pro Gln Pro Ala Gln Asn Ala
1   5   10   15

Thr Thr Ala Asn Thr Ser Arg Pro Leu Lys Ser Ser Gly Thr Arg Ser
            20   25   30

Trp Pro Pro Pro Ser Thr Thr Pro Gly Ser Ser Trp Arg Ser Thr Met
        35   40   45

Pro Gly Trp Leu Arg Thr Thr Ser Gly Ser Ser Ala Leu Pro Arg Leu
    50   55   60

Ser Pro Leu Pro Ala Leu Pro Thr Leu Leu Gly Leu Leu Leu Ala Leu
65   70   75   80

Thr Gln Ala Ala Lys Thr Pro Pro Thr Ser Phe Phe Gly Leu Pro Leu
                85   90   95

Leu Arg Tyr Glu Asn Glu Leu Ala Leu Arg Gln Gly Val Glu Ala Asp
                100   105   110

Ile Asn Gly Leu Arg Arg Val Leu Asp Glu Leu Thr Leu Ala Arg Thr
            115   120   125

Asp Leu Glu Met Gln Ile Glu Gly Leu Asn Glu Glu Leu Ala Tyr Leu
    130   135   140

389

```
Lys Lys Asn His Glu Glu Glu Met Lys Glu Phe Ser Ser Gln Leu Ala
145             150             155                 160


Gly Gln Val Asn Val Glu Met Asp Ala Ala Pro Gly Val Asp Leu Thr
                165             170                 175


Arg Val Leu Ala Glu Met Arg Glu Gln Tyr Glu Ala Met Ala Glu Lys
            180             185             190


Asn Arg Arg Asp Val Glu Ala Trp Phe Phe Ser Lys Thr Glu Glu Leu
        195             200             205


Asn Lys Glu Val Ala Ser Asn Thr Glu Met Ile Gln Thr Ser Lys Thr
    210             215             220


Glu Ile Thr Asp Leu Arg Arg Thr Met Gln Glu Leu Glu Ile Glu Leu
225             230             235             240


Gln Ser Gln Leu Ser Met Lys Ala Gly Leu Glu Asn Ser Leu Ala Glu
            245             250             255


Thr Glu Cys Arg Tyr Ala Thr Gln Leu Gln Gln Ile Gln Gly Leu Ile
            260             265             270


Gly Gly Leu Glu Ala Gln Leu Ser Glu Leu Arg Cys Glu Met Glu Ala
            275             280             285


Gln Asn Gln Glu Tyr Lys Met Leu Leu Asp Ile Lys Thr Arg Leu Glu
    290             295             300


Gln Glu Ile Ala Thr Tyr Arg Ser Leu Leu Glu Gly Gln Asp Ala Lys
305             310             315             320


Met Ala Gly Ile Gly Ile Arg Glu Ala Ser Ser Gly Gly Gly Gly Ser
            325             330             335


Ser Ser Asn Phe His Ile Asn Val Glu Glu Ser Val Asp Gly Gln Val
            340             345             350


Val Ser Ser His Lys Arg Glu Ile
            355             360


<210>  302
<211>  393
<212>  PRT
<213>  Homo sapien
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<400> 302

Met Thr Thr Thr Phe Leu Gln Thr Ser Ser Ser Thr Phe Gly Gly Gly
1   5   10   15

Ser Thr Arg Gly Gly Ser Leu Leu Ala Gly Gly Gly Phe Gly Gly
            20   25   30

Gly Ser Leu Ser Gly Gly Gly Ser Arg Ser Ile Ser Ala Ser Ser
        35   40   45

Ala Arg Phe Val Ser Ser Gly Ser Gly Gly Tyr Gly Gly Gly Met
    50   55   60

Arg Val Cys Gly Phe Gly Gly Ala Gly Ser Val Phe Gly Gly Gly
65   70   75   80

Phe Gly Gly Gly Val Gly Gly Gly Phe Gly Gly Phe Gly Gly Gly
                85   90   95

Asp Gly Gly Leu Leu Ser Gly Asn Glu Lys Ile Thr Met Gln Asn Leu
            100   105   110

Asn Asp Arg Leu Ala Ser Tyr Leu Asp Lys Val Arg Ala Leu Glu Glu
            115   120   125

Ala Asn Ala Asp Leu Glu Val Lys Ile His Asp Trp Tyr Gln Lys Gln
    130   135   140

Thr Pro Ala Ser Pro Glu Cys Asp Tyr Ser Gln Tyr Phe Lys Thr Ile
145   150   155   160

Glu Glu Leu Arg Asp Lys Ile Met Ala Thr Thr Ile Asp Asn Ser Arg
                165   170   175

Val Ile Leu Glu Ile Asp Asn Ala Arg Leu Ala Ala Asp Asp Phe Arg
            180   185   190

Leu Lys Tyr Glu Asn Glu Leu Ala Leu Arg Gln Gly Val Glu Ala Asp
        195   200   205

Ile Asn Gly Leu Arg Arg Val Leu Asp Glu Leu Thr Leu Ala Arg Thr
210   215   220

Asp Leu Glu Met Gln Ile Glu Gly Leu Asn Glu Glu Leu Ala Tyr Leu
225   230   235   240

```
Lys Lys Asn His Glu Glu Glu Met Lys Glu Phe Ser Ser Gln Leu Ala
            245             250             255

Gly Gln Val Asn Val Glu Met Asp Ala Ala Pro Gly Val Asp Leu Thr
            260             265             270

Arg Val Leu Ala Glu Met Arg Glu Gln Tyr Glu Ala Met Ala Glu Lys
            275             280             285

Asn Arg Arg Asp Val Glu Ala Trp Phe Phe Ser Lys Thr Glu Glu Leu
290             295             300

Asn Lys Glu Val Ala Ser Asn Thr Glu Met Ile Gln Thr Ser Lys Thr
305             310             315             320

Glu Ile Thr Asp Leu Arg Arg Thr Met Gln Glu Leu Glu Ile Glu Leu
            325             330             335

Gln Ser Gln Leu Ser Met Lys Ala Gly Leu Glu Asn Ser Leu Ala Glu
            340             345             350

Thr Glu Cys Arg Tyr Ala Thr Gln Leu Gln Gln Ile Gln Gly Leu Ile
            355             360             365

Gly Gly Leu Glu Ala Gln Leu Ser Glu Leu Arg Cys Glu Met Glu Ala
370             375             380

Gln Asn Gln Glu Val Gln Asp Ala Ala
385             390


<210>  303
<211>  499
<212>  PRT
<213>  Homo sapien

<400>  303

Glu Leu Thr Gly Ser Ser Tyr Leu Ala Met Thr Thr Thr Phe Leu Gln
1               5               10              15

Thr Ser Ser Ser Thr Phe Gly Gly Gly Ser Thr Arg Gly Gly Ser Leu
            20              25              30

Leu Ala Gly Gly Gly Gly Phe Gly Gly Gly Ser Leu Ser Gly Gly Gly
            35              40              45

Gly Ser Arg Ser Ile Ser Ala Ser Ser Ala Arg Phe Val Ser Ser Gly
```

```
              50                      55                      60

Ser Gly Gly Gly Tyr Gly Gly Gly Met Arg Val Cys Gly Phe Gly Gly
65                  70              75                  80


Gly Ala Gly Ser Val Phe Gly Gly Gly Phe Gly Gly Gly Val Gly Gly
                85              90                  95


Gly Phe Gly Gly Gly Phe Gly Gly Gly Asp Gly Gly Leu Leu Ser Gly
              100             105             110


Asn Glu Lys Ile Thr Met Gln Asn Leu Asn Asp Arg Leu Ala Ser Tyr
          115             120             125


Leu Asp Lys Val Arg Ala Leu Glu Glu Ala Asn Ala Asp Leu Glu Val
      130             135             140


Lys Ile His Asp Trp Tyr Gln Lys Gln Thr Pro Ala Ser Pro Glu Cys
145             150             155             160


Asp Tyr Ser Gln Tyr Phe Lys Thr Ile Glu Glu Leu Arg Asp Lys Ile
              165             170             175


Met Ala Thr Thr Ile Asp Asn Ser Arg Val Ile Leu Glu Ile Asp Asn
              180             185             190


Ala Arg Leu Ala Ala Asp Asp Phe Arg Leu Lys Tyr Glu Asn Glu Leu
          195             200             205


Ala Leu Arg Gln Gly Val Glu Ala Asp Ile Asn Gly Leu Arg Arg Val
      210             215             220


Leu Asp Glu Leu Thr Leu Ala Arg Thr Asp Leu Glu Met Gln Ile Glu
225             230             235             240


Gly Leu Asn Glu Glu Leu Ala Tyr Leu Lys Lys Asn His Glu Glu Glu
              245             250             255


Met Lys Glu Phe Ser Ser Gln Leu Ala Gly Gln Val Asn Val Glu Met
              260             265             270


Asp Ala Ala Pro Gly Val Asp Leu Thr Arg Val Leu Ala Glu Met Arg
      275             280             285


Glu Gln Tyr Glu Ala Met Ala Glu Lys Asn Arg Arg Asp Val Glu Ala
      290             295             300
```

```
Trp Phe Phe Ser Lys Thr Glu Glu Leu Asn Lys Glu Val Ala Ser Asn
305             310             315             320

Thr Glu Met Ile Gln Thr Ser Lys Thr Glu Ile Thr Asp Leu Arg Arg
            325             330             335

Thr Met Gln Glu Leu Glu Ile Glu Leu Gln Ser Gln Leu Ser Met Lys
            340             345             350

Ala Gly Leu Glu Asn Ser Leu Ala Glu Thr Glu Cys Arg Tyr Ala Thr
        355             360             365

Gln Leu Gln Gln Ile Gln Gly Leu Ile Gly Gly Leu Glu Ala Gln Leu
    370             375             380

Ser Glu Leu Arg Cys Glu Met Glu Ala Gln Asn Gln Glu Tyr Lys Met
385             390             395             400

Leu Leu Asp Ile Lys Thr Arg Leu Glu Gln Glu Ile Ala Thr Tyr Arg
            405             410             415

Ser Leu Leu Glu Gly Gln Asp Ala Lys Met Ala Gly Ile Gly Ile Arg
        420             425             430

Glu Asp Val Pro Cys His Ser Pro Leu Ser Ser Gly Gln Val Glu Asp
        435             440             445

Trp Pro Glu Gly Leu His Met Gln Thr Pro Val Pro Ala Phe Arg Glu
    450             455             460

Leu Lys Arg Val Pro Arg Ser Phe Ile Ser Gly Leu Cys Met Arg Ser
465             470             475             480

Ile Pro Pro Leu Pro Leu Pro Thr Phe Phe Gly Ala Arg Arg Cys Ser
            485             490             495

Cys Ile Val
```

```
<210>  304
<211>  458
<212>  PRT
<213>  Homo sapien

<400>  304
```

Glu Leu Thr Gly Ser Ser Tyr Leu Ala Met Thr Thr Thr Phe Leu Gln
1   5   10   15

Thr Ser Ser Ser Thr Phe Gly Gly Gly Ser Thr Arg Gly Gly Ser Leu
          20   25   30

Leu Ala Gly Gly Gly Gly Phe Gly Gly Gly Ser Leu Ser Gly Gly Gly
          35   40   45

Gly Ser Arg Ser Ile Ser Ala Ser Ser Ala Arg Phe Val Ser Ser Gly
      50   55   60

Ser Gly Gly Gly Tyr Gly Gly Gly Met Arg Val Cys Gly Phe Gly Gly
65   70   75   80

Gly Ala Gly Ser Val Phe Gly Gly Gly Phe Gly Gly Gly Val Gly Gly
              85   90   95

Gly Phe Gly Gly Gly Phe Gly Gly Gly Asp Gly Gly Leu Leu Ser Gly
          100   105   110

Asn Glu Lys Ile Thr Met Gln Asn Leu Asn Asp Arg Leu Ala Ser Tyr
      115   120   125

Leu Asp Lys Val Arg Ala Leu Glu Glu Ala Asn Ala Asp Leu Glu Val
      130   135   140

Lys Ile His Asp Trp Tyr Gln Lys Gln Thr Pro Ala Ser Pro Glu Cys
145   150   155   160

Asp Tyr Ser Gln Tyr Phe Lys Thr Ile Glu Glu Leu Arg Asp Lys Ile
              165   170   175

Met Ala Thr Thr Ile Asp Asn Ser Arg Val Ile Leu Glu Ile Asp Asn
          180   185   190

Ala Arg Leu Ala Ala Asp Asp Phe Arg Leu Lys Tyr Glu Asn Glu Leu
      195   200   205

Ala Leu Arg Gln Gly Val Glu Ala Asp Ile Asn Gly Leu Arg Arg Val
      210   215   220

Leu Asp Glu Leu Thr Leu Ala Arg Thr Asp Leu Glu Met Gln Ile Glu
225   230   235   240

Gly Leu Asn Glu Glu Leu Ala Tyr Leu Lys Lys Asn His Glu Glu Glu

395

245   250   255

Met Lys Glu Phe Ser Ser Gln Leu Ala Gly Gln Val Asn Val Glu Met
            260   265   270

Asp Ala Ala Pro Gly Val Asp Leu Thr Arg Val Leu Ala Glu Met Arg
            275   280   285

Glu Gln Tyr Glu Ala Met Ala Glu Lys Asn Arg Arg Asp Val Glu Ala
    290   295   300

Trp Phe Phe Ser Lys Thr Glu Glu Leu Asn Lys Glu Val Ala Ser Asn
305   310   315   320

Thr Glu Met Ile Gln Thr Ser Lys Thr Glu Ile Thr Asp Leu Arg Arg
                    325   330   335

Thr Met Gln Glu Leu Glu Ile Glu Leu Gln Ser Gln Leu Ser Met Lys
                    340   345   350

Ala Gly Leu Glu Asn Ser Leu Ala Glu Thr Glu Cys Arg Tyr Ala Thr
            355   360   365

Gln Leu Gln Gln Ile Gln Gly Leu Ile Gly Gly Leu Glu Ala Gln Leu
            370   375   380

Ser Glu Leu Arg Cys Glu Met Glu Ala Gln Asn Gln Glu Tyr Lys Met
385   390   395   400

Leu Leu Asp Ile Lys Thr Arg Leu Glu Gln Glu Ile Ala Thr Tyr Arg
                    405   410   415

Ser Leu Leu Glu Gly Gln Asp Ala Lys Met Ala Gly Ile Gly Ile Arg
            420   425   430

Glu Gly Leu Cys Met Arg Ser Ile Pro Pro Leu Pro Leu Pro Thr Phe
            435   440   445

Phe Gly Ala Arg Arg Cys Ser Cys Ile Val
        450   455

<210> 305
<211> 281
<212> PRT
<213> Homo sapien

<400> 305

```
Met Thr Thr Thr Phe Leu Gln Thr Ser Ser Ser Thr Phe Gly Gly Gly
1               5                   10              15

Ser Thr Arg Gly Gly Ser Leu Leu Ala Gly Gly Gly Gly Phe Gly Gly
            20              25                  30

Gly Ser Leu Ser Gly Gly Gly Gly Ser Arg Ser Ile Ser Ala Ser Ser
        35                  40                  45

Ala Arg Phe Val Ser Ser Gly Ser Gly Gly Gly Tyr Gly Gly Gly Met
    50                  55                  60

Arg Val Cys Gly Phe Gly Gly Gly Ala Gly Ser Val Phe Gly Gly Gly
65                  70                  75                  80

Phe Gly Gly Gly Val Gly Gly Gly Phe Gly Gly Gly Phe Gly Gly Gly
                85                  90                  95

Asp Gly Gly Leu Leu Ser Gly Asn Glu Lys Ile Thr Met Gln Asn Leu
            100                 105                 110

Asn Asp Arg Leu Ala Ser Tyr Leu Asp Lys Val Arg Ala Leu Glu Glu
        115                 120                 125

Ala Asn Ala Asp Leu Glu Val Lys Ile His Asp Trp Tyr Gln Lys Gln
    130                 135                 140

Thr Pro Ala Ser Pro Glu Cys Asp Tyr Ser Gln Tyr Phe Lys Thr Ile
145                 150                 155                 160

Glu Glu Leu Arg Asp Lys Ile Met Ala Thr Thr Ile Asp Asn Ser Arg
            165                 170                 175

Val Ile Leu Glu Ile Asp Asn Ala Arg Leu Ala Ala Asp Asp Phe Arg
            180                 185                 190

Leu Lys Tyr Glu Asn Glu Leu Ala Leu Arg Gln Gly Val Glu Ala Asp
        195                 200                 205

Ile Asn Gly Leu Arg Arg Val Leu Asp Glu Leu Thr Leu Ala Arg Thr
    210                 215                 220

Asp Leu Glu Met Gln Ile Glu Gly Glu Gly Leu His Met Gln Thr Pro
225                 230                 235                 240
```

397

Val Pro Ala Phe Arg Glu Leu Lys Arg Val Pro Arg Ser Phe Ile Ser
                245   250   255

Gly Leu Cys Met Arg Ser Ile Pro Pro Leu Pro Leu Pro Thr Phe Phe
            260   265   270

Gly Ala Arg Arg Cys Ser Cys Ile Val
        275   280

<210> 306
<211> 49
<212> PRT
<213> Homo sapien

<400> 306

Gly Arg Leu Leu Leu Leu Asn Ser Arg Pro Arg Arg Gln Ile Cys Leu
1   5   10   15

His His Leu Leu Leu Pro Glu Glu Leu Gln Glu Leu Arg Thr Cys Cys
            20   25   30

Lys Ser Leu Pro Ser Lys Cys Ser Asn Pro Ala His Gly Asp Cys Leu
        35   40   45

Phe

<210> 307
<211> 98
<212> PRT
<213> Homo sapien

<400> 307

Ala Val Ala Gln Ala Met Phe Tyr Pro Phe Leu Glu Ser Ser Leu Asp
1   5   10   15

Gln Ala Asn Cys Arg Thr Thr Phe Phe Gly Ser Gln Glu Ser Pro Ile
            20   25   30

Pro Ser Pro Trp Ser Pro Val Pro Gln Phe Tyr Ile Leu Leu Gln Ile
        35   40   45

Ser Leu Gln Val Ser His Ser Met Ala Pro Ala Asp Thr Arg Thr Gln
    50   55   60

Ser Phe Pro Lys Ser Lys Ser Ser Lys Gln Asn Pro His Pro Asn Pro
65   70   75   80

Lys Phe Cys Phe Gly Ser Asn Tyr Leu Gln Asn Val Phe Asn Lys Met
                85   90   95

Leu Leu

<210> 308
<211> 226
<212> PRT
<213> Homo sapien

<400> 308

Met Cys Arg Ala Thr Asp Pro Arg Cys Pro Pro Cys Ser Ser Asp His
1   5   10   15

Gly Gln His Gly Val Met Gly Val His Thr Gly Ala Asp Thr Arg Gly
                20   25   30

Gln Tyr Leu Thr Tyr Leu Leu Tyr Arg Trp Glu Gln Gly Gly Ser Gly
            35   40   45

Gly His Ser Gln Asn Tyr Thr Ala Phe Asn Arg Trp Gln Asn Trp Gly
        50   55   60

Ser Asp Pro Asp Leu Gly Ser Ser His Ser Trp Cys Asp Cys Gly Ser
65   70   75   80

Ser Phe Pro His Leu Gly Leu Ala Ile Ser Leu Ser Glu Trp Thr Trp
                85   90   95

Arg Gly Arg Gly Pro Ser Ser Trp Met Ala Ala Gly Ile Lys Ser Ser
            100   105   110

Leu Gly Leu Ala Arg Arg Arg Ala Cys Gly Trp Trp Thr Gly Met Pro
        115   120   125

Gly Ser Ser Pro Gly Ser Leu Leu Pro Ser Asn Arg Leu Ser Leu Val
        130   135   140

Pro Leu Val Pro Ser Ala Ser Met Thr Arg Leu Met Arg Ser Arg Thr
145   150   155   160

Ala Ser Gly Ser Ser Val Thr Ser Leu Asp Gly Thr Arg Ser Arg Ser
                165   170   175

His Thr Ser Glu Gly Thr Arg Ser Arg Ser His Thr Ser Glu Gly Thr

399

Arg Ser Arg Ser His Thr Ser Glu Gly Ala His Leu Asp Ile Thr Pro
        195   200   205

Asn Ser Gly Ala Ala Gly Asn Ser Ala Gly Pro Lys Ser Met Glu Val
    210   215   220

Ser Cys
225

<210> 309
<211> 208
<212> PRT
<213> Homo sapien

<400> 309

Met Lys Leu Leu Ser Leu Val Ala Val Val Gly Cys Leu Leu Val Pro
1   5   10   15

Pro Ala Glu Ala Asn Lys Val Arg Glu Val Ser Leu Gln His Leu Val
            20   25   30

Thr Thr Thr Val His Gly His Pro Val Tyr Arg Ala Asp Ser Glu Ser
        35   40   45

Ser Glu Asp Ile Arg Cys Lys Cys Ile Cys Pro Pro Tyr Arg Asn Ile
    50   55   60

Ser Gly His Ile Tyr Asn Gln Asn Val Ser Gln Lys Asp Cys Asn Cys
65   70   75   80

Leu His Val Val Glu Pro Met Pro Val Pro Gly His Asp Val Glu Ala
            85   90   95

Tyr Cys Leu Leu Cys Glu Cys Arg Tyr Glu Glu Arg Ser Thr Thr Thr
        100   105   110

Ile Lys Val Ile Ile Val Ile Tyr Leu Ser Val Val Gly Ala Leu Leu
    115   120   125

Leu Tyr Met Ala Phe Leu Met Leu Val Asp Pro Leu Ile Arg Lys Pro
    130   135   140

Asp Ala Tyr Thr Glu Gln Leu His Asn Glu Glu Glu Asn Glu Asp Ala
145   150   155   160

400

```
Arg Ser Met Ala Ala Ala Ala Ala Ser Leu Gly Gly Pro Arg Ala Asn
              165             170             175

Thr Val Leu Glu Arg Val Glu Gly Ala Gln Gln Arg Trp Lys Leu Gln
              180             185             190

Val Gln Glu Gln Arg Lys Thr Val Phe Asp Arg His Lys Met Leu Ser
          195             200             205
```

<210> 310
<211> 170
<212> PRT
<213> Homo sapien

<400> 310

```
Met Thr Arg Gln Gly Pro Gln Pro Ala Ala Leu Gly Glu Ala Gln Pro
1               5               10              15

Pro Ser Leu Gly Lys Val Arg Leu Trp Gly Ser Phe Phe Pro Cys Gln
              20              25              30

Thr Phe Arg Ile Gln Asp Pro Ser Gly Leu Pro Cys Gln Ile Phe Ser
          35              40              45

Phe Phe Leu Pro Thr Thr Gly Cys Ser Leu Tyr Gly Ser Ser Cys Cys
      50              55              60

Ile Pro Arg Gly Thr Pro Ser Lys His Ser Pro Gly Ala Cys Gly Arg
65              70              75              80

Cys Pro Ala Ala Val Glu Ala Ala Gly Ala Gly Ala Ala Glu Asp Ser
              85              90              95

Leu Arg Ser Ala Gln Asp Ala Gln Leu Asp Gly Leu Val Trp Leu Gly
          100             105             110

Gln Gly Pro Asn Thr Met Ala Ala Ser Phe Gln Ala Gly Gln Ser Arg
          115             120             125

Gly Leu Leu Leu Pro Ser Leu Gly Ser Ser Leu Pro Phe Lys Ser Leu
          130             135             140

Trp His Phe Ser Ser Phe Ser Leu Thr Leu Glu Met Leu Tyr Leu Ala
145             150             155             160

Ile Leu Ile Arg Glu Glu Gly Cys Gly Leu
```

401

165   170

```
<210>  311
<211>  67
<212>  PRT
<213>  Homo sapien

<400>  311

Pro Gln Val Cys Trp Asn Ser Pro Leu Ala Trp Ser Arg Pro Arg Tyr
1                   5                   10                  15


Arg Arg Leu Leu Glu Gly Glu Ser Glu Gly Thr Arg Glu Glu Ser Lys
                20                  25                  30


Ser Ser Met Lys Val Ser Ala Thr Pro Lys Ile Lys Ala Ile Thr Gln
            35                  40                  45


Glu Thr Ile Asn Gly Arg Leu Val Leu Cys Gln Val Asn Glu Ile Gln
        50                  55                  60


Lys His Ala
65


<210>  312
<211>  32
<212>  PRT
<213>  Homo sapien

<400>  312

Pro Gln Val Cys Trp Asn Ser Pro Leu Ala Trp Ser Arg Pro Ser Thr
1                   5                   10                  15


Ala Leu Lys Glu Lys Arg Asn Lys Lys Glu Val Glu Thr Thr Lys Val
                20                  25                  30


<210>  313
<211>  74
<212>  PRT
<213>  Homo sapien

<400>  313

Ala Ala Gly Val Leu Glu Phe Ala Leu Ser Val Val Ala Ala Glu Tyr
1                   5                   10                  15


Cys Phe Glu Gly Glu Lys Glu Gln Glu Arg Gly Arg Asn Asn Lys Ser
                20                  25                  30


Leu Thr Leu Phe Ser Pro Val Phe Pro Asn Ile Phe Asp Leu Glu Thr
```

```
                35                      40                      45

        Cys Phe Leu Arg Leu Pro Leu Ile Ser His Arg Lys Val Pro Gly Asp
            50                  55                  60


        Cys Ser Leu Gly Gln Val Ala Leu Ser Asp
        65                  70
```

<210> 314
<211> 66
<212> PRT
<213> Homo sapien

<400> 314

```
        Met His Val Glu Arg Arg Ser Val Met Asp Ser Gly Arg Pro Gly Arg
        1                   5                   10                  15


        Trp Gln Gly Ser Val Ala Gly Ser Leu Ser Ser Leu Glu Ser Ala Thr
                    20                  25                  30


        Thr Asp Ser Asp Leu Asp Tyr Asp Tyr Leu Gln Asn Trp Gly Pro Arg
                    35                  40                  45


        Phe Lys Lys Leu Ala Asp Leu Tyr Gly Ser Lys Asp Thr Phe Asp Asp
            50                  55                  60


        Asp Ser
        65
```

<210> 315
<211> 94
<212> PRT
<213> Homo sapien

<400> 315

```
        Thr Ser Ser Leu Ala Ser Gln Arg Leu Lys Met Asn Ser Asp Ala Phe
        1                   5                   10                  15


        Ile Leu Leu Leu Tyr Met Asn Arg Ala Leu Arg Thr Ser Pro Val Ser
                    20                  25                  30


        Phe His Ser Ile Leu Leu Ser Val His Asp Ala Pro Ala Thr Leu Ala
                    35                  40                  45


        Ile Phe Arg Phe Leu Ile Gln Lys Lys Thr Arg Ser Phe Ser Met Glu
            50                  55                  60
```

```
Ser Arg Ser Pro Leu Leu Phe Cys Ile Asp Asp Asn Ser Leu Asn Leu
65              70              75                  80


Phe Cys Phe Leu Ala Leu Cys Met Cys Val Gly Gly Trp Asp
            85              90


<210>  316
<211>  30
<212>  PRT
<213>  Homo sapien

<400>  316

Tyr Ala Leu Ile Gly Thr Gly Leu Tyr Leu Glu Arg Arg Gln Cys Asp
1               5               10              15


Gly Cys Val Val Ala Ala Glu Val Asp Leu Val Leu Arg Asn
            20              25              30


<210>  317
<211>  94
<212>  PRT
<213>  Homo sapien

<400>  317

Thr Ser Ser Leu Ala Ser Gln Arg Leu Lys Met Asn Ser Asp Ala Phe
1               5               10              15


Ile Leu Leu Leu Tyr Met Asn Arg Ala Leu Arg Thr Ser Pro Val Ser
            20              25              30


Phe His Ser Ile Leu Leu Ser Val His Asp Ala Pro Ala Thr Leu Ala
            35              40              45


Ile Phe Arg Phe Leu Ile Gln Lys Lys Thr Arg Ser Phe Ser Met Glu
    50              55              60


Ser Arg Ser Pro Leu Leu Phe Cys Ile Asp Asp Asn Ser Leu Asn Leu
65              70              75                  80


Phe Cys Phe Leu Ala Leu Cys Met Cys Val Gly Gly Trp Asp
            85              90


<210>  318
<211>  147
<212>  PRT
<213>  Homo sapien

<400>  318
```

```
Met Asp Asp Ser Thr Glu Arg Glu Gln Ser Arg Leu Thr Ser Cys Leu
1               5               10              15

Lys Lys Arg Glu Glu Met Lys Leu Lys Glu Cys Val Ser Ile Leu Pro
          20              25              30

Arg Lys Glu Ser Pro Ser Val Arg Ser Ser Lys Asp Gly Lys Leu Leu
          35              40              45

Ala Ala Thr Leu Leu Leu Ala Leu Leu Ser Cys Cys Leu Thr Val Val
      50              55              60

Ser Phe Tyr Gln Val Ala Ala Leu Gln Gly Asp Leu Ala Ser Leu Arg
65              70              75              80

Ala Glu Leu Gln Gly His His Ala Glu Lys Leu Pro Ala Gly Ala Gly
              85              90              95

Ala Pro Lys Ala Gly Leu Glu Glu Ala Pro Ala Val Thr Ala Gly Leu
          100             105             110

Lys Val Ser Leu Gln Gln Leu Gln Asp Ala Gly Lys Ile Leu Pro Thr
          115             120             125

Leu Leu Pro Leu Pro Arg Leu Ser Cys Leu Ser Asn Asn Leu Lys Phe
    130             135             140

Phe Cys Ser
145


<210>  319
<211>  353
<212>  PRT
<213>  Homo sapien

<400>  319

Met Asp His His Phe Ile Ala Glu Phe Lys Arg Thr His Lys Lys Asp
1               5               10              15

Ile Ser Glu Asn Lys Arg Ala Val Arg Arg Leu Arg Thr Ala Cys Glu
          20              25              30

Arg Ala Lys Arg Thr Leu Ser Ser Ser Thr Gln Ala Ser Ile Glu Ile
          35              40              45

Asp Ser Leu Tyr Glu Gly Ile Asp Phe Tyr Thr Ser Ile Thr Arg Ala
      50              55              60
```

Arg Phe Glu Glu Leu Asn Ala Asp Leu Phe Arg Gly Thr Leu Asp Pro
65   70   75   80

Val Glu Lys Ala Leu Arg Asp Ala Lys Leu Asp Lys Ser Gln Ile His
            85   90   95

Asp Ile Val Leu Val Gly Gly Ser Thr Arg Ile Pro Lys Ile Gln Lys
            100   105   110

Leu Leu Gln Asp Phe Phe Asn Gly Lys Glu Leu Asn Lys Ser Ile Asn
        115   120   125

Pro Asp Glu Ala Val Ala Tyr Gly Ala Ala Val Gln Ala Ala Ile Leu
    130   135   140

Ser Gly Asp Lys Ser Glu Asn Val Gln Asp Leu Leu Leu Leu Asp Val
145   150   155   160

Thr Pro Leu Ser Leu Gly Ile Glu Thr Ala Gly Gly Val Met Thr Val
            165   170   175

Leu Ile Lys Arg Asn Thr Thr Ile Pro Thr Lys Gln Thr Gln Thr Phe
            180   185   190

Thr Thr Tyr Ser Asp Asn Gln Pro Gly Val Leu Ile Gln Val Tyr Glu
        195   200   205

Gly Glu Arg Ala Met Thr Lys Asp Asn Asn Leu Leu Gly Lys Phe Glu
    210   215   220

Leu Thr Gly Ile Pro Pro Ala Pro Arg Gly Val Pro Gln Ile Glu Val
225   230   235   240

Thr Phe Asp Ile Asp Ala Asn Gly Ile Leu Asn Val Ser Ala Val Asp
            245   250   255

Lys Ser Thr Gly Lys Glu Asn Lys Ile Thr Ile Thr Asn Asp Lys Gly
        260   265   270

Arg Leu Ser Lys Glu Asp Ile Glu Arg Met Val Gln Glu Ala Glu Lys
    275   280   285

Tyr Lys Ala Glu Asp Glu Lys Gln Arg Asp Lys Val Ser Ser Lys Asn
    290   295   300

```
Ser Leu Glu Ser Tyr Ala Phe Asn Met Lys Ala Thr Val Glu Asp Glu
305               310             315             320


Asn Phe Arg Gln Ile Thr Val Arg Gln Gln Ser Ser Trp Gln Gly Tyr
              325             330             335


Glu Tyr Gln Leu Ala Asp Lys Ile Ser Ser Gly Gly Gly Phe Asp Ile
              340             345             350


Thr
```

```
<210>  320
<211>  205
<212>  PRT
<213>  Homo sapien

<220>
<221>  MISC_FEATURE
<222>  (201)..(201)
<223>  x=any amino acid


<220>
<221>  MISC_FEATURE
<222>  (204)..(204)
<223>  x=any amino acid


<400>  320
```

```
Gln Leu Leu Leu Met Gly Ala Ala Val Gln Ala Ala Ile Leu Ser Gly
1               5               10              15


Asp Lys Ser Glu Asn Val Gln Asp Leu Leu Leu Leu Asp Val Thr Pro
              20              25              30


Leu Ser Leu Gly Ile Glu Thr Ala Gly Gly Val Met Thr Val Leu Ile
      35              40              45


Lys Arg Asn Thr Thr Ile Pro Thr Lys Gln Thr Gln Thr Phe Thr Thr
    50              55              60


Tyr Ser Asp Asn Gln Pro Gly Val Leu Ile Gln Val Tyr Glu Gly Glu
65              70              75              80


Arg Ala Met Thr Lys Asp Asn Asn Leu Leu Gly Lys Phe Glu Leu Thr
              85              90              95


Gly Ile Pro Pro Ala Pro Arg Gly Val Pro Gln Ile Glu Val Thr Phe
```

```
                100                    105                         110

Asp Ile Asp Ala Asn Gly Ile Leu Asn Val Ser Ala Val Asp Lys Ser
        115                 120                 125

Thr Gly Lys Glu Asn Lys Ile Thr Ile Thr Asn Asp Lys Gly Arg Leu
        130                 135                 140

Ser Lys Glu Asp Ile Glu Arg Met Val Gln Glu Ala Glu Lys Tyr Lys
145                     150                 155                 160

Ala Glu Asp Glu Lys Gln Arg Asp Lys Val Ser Ser Lys Asn Ser Leu
                165                 170                 175

Glu Ser Tyr Ala Phe Asn Met Lys Ala Thr Val Glu Asp Glu Asn Phe
            180                 185                 190

Arg Gln Ile Thr Val Arg Gln Gln Xaa Ser Gly Xaa Leu
        195                 200                 205
```

```
<210>   321
<211>   118
<212>   PRT
<213>   Homo sapien

<400>   321

Met Cys Pro Arg Cys Met Leu Glu Arg Arg Ser Val Met Asp Gly Arg
1                   5                   10                  15

Gly Arg Gly Gly Gly Pro Ala Ser Gly His His Ser Gly Pro Ser Leu
                20                  25                  30

His Ala Glu Asn His Thr Ser Gln Thr Phe Thr Gln His Phe Leu Pro
        35                  40                  45

Gln Ser Gln Lys Met His Lys Glu Glu His Glu Val Ala Val Leu Gly
    50                  55                  60

Ala Pro Pro Ser Thr Ile Leu Pro Arg Ser Thr Val Ile Asn Ile His
65                  70                  75                  80

Ser Glu Thr Ser Val Pro Asp His Val Val Trp Ser Leu Phe Asn Thr
                85                  90                  95

Leu Phe Met Asn Pro Cys Cys Leu Asn Trp Cys Cys Leu Gly Phe Asn
                100                 105                 110
```

```
Ser Ile Arg Leu Thr Pro
        115


<210>   322
<211>   183
<212>   PRT
<213>   Homo sapien

<400>   322

Arg Val Asp Ser Tyr Ser Glu Cys Ala Leu Asp His Ala Arg Ala Ala
1               5                   10                  15


Gln Cys Asp Gly Trp Ser Arg Ala Arg Gly Gly Pro Ala Ser Gly His
            20                  25                  30


His Ser Gly Pro Ser Leu His Ala Glu Asn His Thr Ser Gln Thr Phe
            35                  40                  45


Thr Gln His Phe Leu Pro Gln Ser Gln Lys Met His Lys Glu Glu His
        50                  55                  60


Glu Val Ala Val Leu Gly Ala Pro Pro Ser Thr Ile Leu Pro Arg Ser
65                  70                  75                  80


Thr Val Ile Asn Ile His Ser Glu Thr Ser Val Pro Asp His Val Val
                85                  90                  95


Trp Ser Leu Phe Asn Thr Leu Phe Leu Asn Trp Cys Cys Leu Gly Phe
            100                 105                 110


Ile Ala Phe Ala Tyr Ser Val Lys Ser Arg Asp Arg Lys Met Val Gly
        115                 120                 125


Asp Val Thr Gly Ala Gln Ala Tyr Ala Ser Thr Ala Lys Cys Leu Asn
    130                 135                 140


Ile Trp Ala Leu Ile Leu Gly Ile Leu Met Thr Ile Gly Phe Ile Leu
145                 150                 155                 160


Leu Leu Val Phe Gly Ser Val Thr Val Tyr His Ile Met Leu Gln Ile
                165                 170                 175


Ile Gln Glu Lys Arg Gly Tyr
            180


<210>   323
```

```
<211>  87
<212>  PRT
<213>  Homo sapien

<400>  323

Met Asn His Thr Val Gln Thr Phe Phe Ser Pro Val Asn Ser Gly Gln
1               5                   10                  15


Pro Pro Asn Tyr Glu Met His Lys Glu Glu His Glu Val Ala Val Leu
            20                  25                  30


Gly Ala Pro Pro Ser Thr Ile Leu Pro Arg Ser Thr Val Ile Asn Ile
        35                  40                  45


His Ser Glu Thr Ser Val Pro Asp His Val Val Trp Ser Leu Phe Asn
    50                  55                  60


Thr Leu Phe Met Asn Pro Cys Cys Leu Asn Trp Cys Cys Leu Gly Phe
65                  70                  75                  80


Asn Ser Ile Arg Leu Thr Pro
                85


<210>  324
<211>  156
<212>  PRT
<213>  Homo sapien

<400>  324

Pro Asp Arg Arg Trp Ser Ser Leu Asp Thr Met Asn His Thr Val Gln
1               5                   10                  15


Thr Phe Phe Ser Pro Val Asn Ser Gly Gln Pro Pro Asn Tyr Glu Met
            20                  25                  30


His Lys Glu Glu His Glu Val Ala Val Leu Gly Ala Pro Pro Ser Thr
        35                  40                  45


Ile Leu Pro Arg Ser Thr Val Ile Asn Ile His Ser Glu Thr Ser Val
    50                  55                  60


Pro Asp His Val Val Trp Ser Leu Phe Asn Thr Leu Phe Leu Asn Trp
65                  70                  75                  80


Cys Cys Leu Gly Phe Ile Ala Phe Ala Tyr Ser Val Lys Ser Arg Asp
                85                  90                  95
```

410

Arg Lys Met Val Gly Asp Val Thr Gly Ala Gln Ala Tyr Ala Ser Thr
          100   105   110

Ala Lys Cys Leu Asn Ile Trp Ala Leu Ile Leu Gly Ile Leu Met Thr
          115   120   125

Ile Gly Phe Ile Leu Leu Leu Val Phe Gly Ser Val Thr Val Tyr His
      130   135   140

Ile Met Leu Gln Ile Ile Gln Glu Lys Arg Gly Tyr
145   150   155

<210> 325
<211> 76
<212> PRT
<213> Homo sapien

<400> 325

Met His Ala Arg Ala Ala Gln Cys Asp Gly Ser Trp Ser Arg Pro Ser
1   5   10   15

Val Val Glu Ala Gly His Leu Glu Leu Arg Gln Ser Arg Arg Arg Asn
          20   25   30

Gly Glu Asp Ser Gly Gly Gly Gly Arg Pro Gly Trp Asp Glu Val Trp
          35   40   45

Trp Trp Val Val Ser Leu Gly Gly Asp Cys Ile Leu Gln His Leu Asn
      50   55   60

Ser Val Cys Leu Leu Cys Glu Thr Ser Ala Asp His
65   70   75

<210> 326
<211> 105
<212> PRT
<213> Homo sapien

<400> 326

Asp Pro Ser Ile Phe Leu Lys Ser Pro Leu Gly Trp Leu Arg Gly Arg
1   5   10   15

Gly Leu Gly Val Gly Gly Leu Ser Arg Ser Asp Cys Arg Asp Arg Leu
          20   25   30

Val Cys Ser Val Asn Thr Asn Lys Ile Asp Leu Leu Ser Gly Lys Arg
      35   40   45

Lys Arg Lys Glu Lys Lys Thr Leu Cys Gly Ile Thr Gln Trp Val Ile
    50   55   60

Arg Arg Val Pro Val Gly Trp Thr Leu Val Phe Pro Gly Ser Gln Phe
65   70   75   80

Pro Ala Gln His Met Ser Thr Asn Gly Glu Thr Thr Arg Ala Ala Gly
            85   90   95

Gly Gln Trp Lys Lys Arg Thr His Gly
            100   105

<210> 327
<211> 109
<212> PRT
<213> Homo sapien

<400> 327

Met Pro Ser Ala Met Thr Val Tyr Ala Leu Val Val Val Ser Tyr Phe
1   5   10   15

Leu Ile Thr Gly Gly Ile Ile Tyr Asp Val Ile Val Glu Pro Pro Ser
            20   25   30

Val Gly Ser Met Thr Asp Glu His Gly His Gln Arg Pro Val Ala Phe
        35   40   45

Leu Ala Tyr Arg Val Asn Gly Gln Tyr Ile Met Glu Gly Leu Ala Ser
    50   55   60

Ser Phe Leu Phe Thr Met Gly Gly Leu Gly Phe Ile Ile Leu Asp Arg
65   70   75   80

Ser Asn Ala Pro Asn Ile Pro Lys Leu Asn Arg Phe Leu Leu Leu Phe
            85   90   95

Met Trp Ile Arg Leu Cys Pro Ile Glu Phe Phe His Gly
            100   105

<210> 328
<211> 153
<212> PRT
<213> Homo sapien

<400> 328

Pro Leu Ala Trp Ser Arg Pro Arg Tyr Arg Val Pro Phe Leu Val Leu
1   5   10   15

Glu Cys Pro Asn Leu Lys Leu Lys Lys Pro Pro Trp Leu His Met Pro
            20   25   30

Ser Ala Met Thr Val Tyr Ala Leu Val Val Val Ser Tyr Phe Leu Ile
            35   40   45

Thr Gly Gly Ile Ile Tyr Asp Val Ile Val Glu Pro Pro Ser Val Gly
        50   55   60

Ser Met Thr Asp Glu His Gly His Gln Arg Pro Val Ala Phe Leu Ala
65   70   75   80

Tyr Arg Val Asn Gly Gln Tyr Ile Met Glu Gly Leu Ala Ser Ser Phe
                85   90   95

Leu Phe Thr Met Gly Gly Leu Gly Phe Ile Ile Leu Asp Arg Ser Asn
            100   105   110

Ala Pro Asn Ile Pro Lys Leu Asn Arg Phe Leu Leu Leu Phe Ile Gly
        115   120   125

Phe Val Cys Val Leu Leu Ser Phe Phe Met Ala Arg Val Phe Met Arg
    130   135   140

Met Lys Leu Pro Gly Tyr Leu Met Gly
145   150

<210> 329
<211> 61
<212> PRT
<213> Homo sapien

<400> 329

Leu Leu Gly Arg Ala Gly Leu Phe Pro Gly Gly Ala Trp Gly Leu Arg
1   5   10   15

Pro Arg Thr Ala Leu Ala Ala Thr Asn Met Glu Thr Leu Tyr Arg Val
            20   25   30

Pro Phe Leu Val Leu Glu Cys Pro Asn Leu Lys Leu Lys Lys Pro Pro
            35   40   45

Trp Leu His Met Pro Ser Ala Met Thr Val Asn Asn Leu
        50   55   60

<210> 330
<211> 102
<212> PRT
<213> Homo sapien

<400> 330

Ile Ile Tyr Asp Val Ile Val Glu Pro Pro Ser Val Gly Ser Met Thr
1   5   10   15

Asp Glu His Gly His Gln Arg Pro Val Ala Phe Leu Ala Tyr Arg Val
            20   25   30

Asn Gly Gln Tyr Ile Met Glu Gly Leu Ala Ser Ser Phe Leu Phe Thr
        35   40   45

Met Gly Gly Leu Gly Phe Ile Ile Leu Asp Arg Ser Asn Ala Pro Asn
    50   55   60

Ile Pro Lys Leu Asn Arg Phe Leu Leu Leu Phe Ile Gly Phe Val Cys
65   70   75   80

Val Leu Leu Ser Phe Phe Met Ala Arg Val Phe Met Arg Met Lys Leu
            85   90   95

Pro Gly Tyr Leu Met Gly
            100

<210> 331
<211> 83
<212> PRT
<213> Homo sapien

<400> 331

Met Glu Thr Leu Tyr Arg Val Pro Phe Leu Val Leu Glu Cys Pro Asn
1   5   10   15

Leu Lys Leu Lys Lys Pro Pro Trp Leu His Met Pro Ser Ala Met Thr
            20   25   30

Val Tyr Ala Leu Val Val Val Ser Tyr Phe Leu Ile Thr Gly Gly Ile
        35   40   45

Ile Tyr Asp Val Ile Val Glu Pro Pro Ser Val Gly Ser Met Thr Asp
    50   55   60

Glu His Gly His Gln Arg Pro Val Ala Phe Leu Ala Tyr Arg Gly Tyr
65   70   75   80

Leu Met Gly

<210> 332
<211> 123
<212> PRT
<213> Homo sapien

<400> 332

Met Pro Ser Ala Met Thr Val Tyr Ala Leu Val Val Val Ser Tyr Phe
1   5   10   15

Leu Ile Thr Gly Gly Ile Ile Tyr Asp Val Ile Val Glu Pro Pro Ser
            20   25   30

Val Gly Ser Met Thr Asp Glu His Gly His Gln Arg Pro Val Ala Phe
            35   40   45

Leu Ala Tyr Arg Val Asn Gly Gln Tyr Ile Met Glu Gly Leu Ala Ser
        50   55   60

Ser Phe Leu Phe Thr Met Gly Gly Leu Gly Phe Ile Ile Leu Asp Arg
65   70   75   80

Ser Asn Ala Pro Asn Ile Pro Lys Leu Asn Arg Phe Leu Leu Leu Phe
                85   90   95

Ile Gly Phe Val Cys Val Leu Leu Ser Phe Phe Met Ala Arg Val Phe
            100   105   110

Met Arg Met Lys Leu Pro Gly Tyr Leu Met Gly
        115   120

<210> 333
<211> 83
<212> PRT
<213> Homo sapien

<400> 333

Met Glu Thr Leu Tyr Arg Val Pro Phe Leu Val Leu Glu Cys Pro Asn
1   5   10   15

Leu Lys Leu Lys Lys Pro Pro Trp Leu His Met Pro Ser Ala Met Thr
            20   25   30

Val Tyr Ala Leu Val Val Val Ser Tyr Phe Leu Ile Thr Gly Gly Ile
        35   40   45

```
Ile Tyr Asp Val Ile Val Glu Pro Pro Ser Val Gly Ser Met Thr Asp
    50                  55              60

Glu His Gly His Gln Arg Pro Val Ala Phe Leu Ala Tyr Arg Gly Tyr
65                  70              75                  80

Leu Met Gly
```

```
<210>  334
<211>  95
<212>  PRT
<213>  Homo sapien

<400>  334
```

```
Met Thr Glu Leu Glu Thr Ala Met Gly Met Ile Ile Asp Val Phe Ser
1               5               10                  15

Arg Tyr Ser Gly Ser Glu Gly Ser Thr Gln Thr Leu Thr Lys Gly Glu
            20              25              30

Leu Lys Val Leu Met Glu Lys Glu Leu Pro Gly Phe Leu Gln Ser Gly
        35              40              45

Lys Asp Lys Asp Ala Val Asp Lys Leu Leu Lys Asp Leu Asp Ala Asn
    50              55              60

Gly Asp Ala Gln Val Asp Phe Ser Glu Phe Ile Val Phe Val Ala Ala
65              70              75                  80

Ile Thr Ser Ala Cys His Lys Tyr Phe Glu Lys Ala Gly Leu Lys
                85              90                  95
```

```
<210>  335
<211>  184
<212>  PRT
<213>  Homo sapien

<400>  335
```

```
Ile Gln Ser Gln Cys Leu Gly Gly Ala His Pro Ser Lys Cys Lys Ser
1               5               10                  15

Ser Arg Gly Val Thr Glu Leu Ala Asn Arg Leu Val Cys Leu Val Phe
            20              25              30

Leu Leu His Val Asp Ile Ile Leu Leu Ile Leu Leu Pro Gly Pro Pro
```

416 .

                35   40   45

Gln Gly Tyr Arg Lys Val Lys Ser Ser Pro Glu Pro Ile Met Ser Ser
    50   55   60

Leu Leu Thr Glu Gly Thr Cys Pro Ala Thr Ala Arg Val Ala Ala Arg
65   70   75   80

Glu Glu Gly Gly Ser Glu Ser Ser Thr Met Thr Glu Leu Glu Thr Ala
                85   90   95

Met Gly Met Ile Ile Asp Val Phe Ser Arg Tyr Ser Gly Ser Glu Gly
            100   105   110

Ser Thr Gln Thr Leu Thr Lys Gly Glu Leu Lys Val Leu Met Glu Lys
        115   120   125

Glu Leu Pro Gly Phe Leu Gln Ser Gly Lys Asp Lys Asp Ala Val Asp
    130   135   140

Lys Leu Leu Lys Asp Leu Asp Ala Asn Gly Asp Ala Gln Val Asp Phe
145   150   155   160

Ser Glu Phe Ile Val Phe Val Ala Ala Ile Thr Ser Ala Cys His Lys
            165   170   175

Tyr Phe Glu Lys Ala Gly Leu Lys
            180

<210> 336
<211> 64
<212> PRT
<213> Homo sapien

<400> 336

Cys Arg Ile Arg Arg Ala Arg His Glu Ser Pro Gly Leu Arg Lys Gly
1   5   10   15

Thr Ser Leu Leu Arg Ser Asn Thr Gln Lys Gly Arg Phe Phe Gln Gly
            20   25   30

Cys Arg Ile Val Gly Ser Gly Pro Lys Trp Leu Met Ala Pro Ser Lys
            35   40   45

Thr Phe Ile Phe Asn Asn Val Lys Asp Leu Arg Ile Lys Arg Ile Gly
            50   55   60

```
<210>   337
<211>   51
<212>   PRT
<213>   Homo sapien

<400>   337

Ser Ser Glu Ile Pro Lys Asn Ser Cys Asn Val Arg Val Arg Lys Asp
1               5                   10                  15


Gly Val Tyr Ser Ser Leu His Phe Tyr Gly Glu Ile Lys Ser Phe Ser
            20                  25                  30


Asn Glu Leu Lys Lys Lys Lys Lys Gly Gly Arg Ser Arg Ser Arg Thr
        35                  40                  45


Ser Phe Phe
        50


<210>   338
<211>   140
<212>   PRT
<213>   Homo sapien

<400>   338

Pro Cys Gly Pro Arg Leu Pro Phe Lys Arg Ala Gly Pro Ala Pro Ala
1               5                   10                  15


Ala Pro His Arg Gly Asp Gln Glu Ala Arg Trp Phe Ser Gly Ala Ala
            20                  25                  30


Pro Ser Arg Leu Pro Pro Ala Pro Arg Phe Ser Gly Pro Ala Ala Ile
        35                  40                  45


Phe Leu Ser Ala Gln Gly Pro Pro Ser Gly Ala Met Gln Pro Thr Leu
    50                  55                  60


Leu Leu Ser Leu Leu Gly Ala Val Gly Leu Ala Ala Val Asn Ser Met
65                  70                  75                  80


Pro Val Asp Asn Arg Asn His Asn Glu Gly Met Val Thr Arg Cys Ile
                85                  90                  95


Ile Glu Val Leu Ser Asn Ala Leu Ser Lys Ser Ser Ala Pro Pro Ile
            100                 105                 110


Thr Pro Glu Cys Arg Gln Val Leu Lys Thr Lys Lys Arg Thr Arg Lys
        115                 120                 125
```

```
    Leu Gly Cys Asn Gly Phe Gly Thr Thr Glu Asp Ser
        130             135             140


<210>   339
<211>   141
<212>   PRT
<213>   Homo sapien

<400>   339

Met Lys Gly Asp Tyr Tyr Arg Tyr Leu Ala Glu Val Ala Ala Gly Asp
1               5               10              15


Glu Pro Glu Arg Asp Trp Pro Ile Arg Ser Thr Gln Ser Ile Pro Lys
            20              25              30


Gly Lys Ala Phe Glu Ile Ser Lys Lys Glu Met Gln Pro Thr His Pro
        35              40              45


Ile Arg Leu Gly Leu Ala Leu Asn Phe Ser Val Phe Tyr Tyr Glu Ile
    50              55              60


Leu Asn Ser Pro Glu Lys Ala Trp Ser Leu Ala Lys Thr Ala Phe Asp
65              70              75              80


Glu Ala Ile Ala Glu Leu Asp Thr Leu Ser Glu Glu Ser Tyr Lys Asp
            85              90              95


Ser Thr Leu Ile Met Gln Leu Leu Arg Asp Asn Leu Thr Leu Trp Thr
            100             105             110


Ser Asp Thr Gln Gly Asp Glu Ala Glu Ala Gly Glu Gly Gly Glu Asn
        115             120             125


Ser Ala Gly Leu Ser Lys Val Leu Ser Ala Ser Val Ser
        130             135             140


<210>   340
<211>   122
<212>   PRT
<213>   Homo sapien

<220>
<221>   MISC_FEATURE
<222>   (83)..(83)
<223>   x=any amino acid


<220>
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<221>  MISC_FEATURE
<222>  (117)..(117)
<223>  x=any amino acid


<400>  340

Ala Arg Ala Pro Ala Gly Glu Lys Ile Glu Thr Glu Leu Arg Asp Ile
1               5               10              15


Cys Asn Gln Cys Thr Val Ser Leu Arg Lys Val Leu Asp Pro Asn Ala
            20              25              30


Ser Gln Ala Glu Ser Lys Val Phe Tyr Leu Lys Met Lys Gly Asp Tyr
        35              40              45


Tyr Arg Tyr Leu Ala Glu Val Ala Ala Gly Asp Glu Pro Glu Arg Asp
    50              55              60


Trp Pro Ile Arg Ser Thr Gln Ser Ile Pro Lys Gly Lys Ala Phe Glu
65              70              75              80


Ile Ser Xaa Lys Glu Met Gln Pro Thr His Pro Ile Arg Leu Gly Leu
            85              90              95


Ala Leu Asn Phe Ser Val Phe Tyr Tyr Glu Ile Leu Asn Ser Pro Glu
            100             105             110


Lys Ala Trp Ser Xaa Cys Lys Asp Ser Phe
            115             120


<210>  341
<211>  51
<212>  PRT
<213>  Homo sapien

<220>
<221>  MISC_FEATURE
<222>  (5)..(5)
<223>  x=any amino acid


<400>  341

Gly Arg Gly Arg Xaa Arg Ala Thr Cys Leu Ser Gly Arg Cys Trp Ala
1               5               10              15


Arg Thr Val Glu Met Ser Glu Lys Lys Gln Pro Val Asp Leu Gly Leu
            20              25              30


Leu Glu Glu Asp Asp Glu Phe Glu Glu Phe Pro Ala Glu Gly Leu Gly
```

420

<pre>
                35   40   45

     Trp Leu Arg
            50

     <210> 342
     <211> 90
     <212> PRT
     <213> Homo sapien

     <220>
     <221> MISC_FEATURE
     <222> (5)..(5)
     <223> x=any amino acid

     <400> 342

     Gly Arg Gly Arg Xaa Arg Ala Thr Cys Leu Ser Gly Arg Cys Trp Ala
     1   5   10   15

     Arg Thr Val Glu Met Ser Glu Lys Lys Gln Pro Val Asp Leu Gly Leu
                20   25   30

     Leu Glu Glu Asp Asp Glu Phe Glu Glu Phe Pro Ala Glu Asp Trp Ala
                35   40   45

     Gly Leu Asp Glu Asp Glu Asp Ala His Val Trp Glu Asp Asn Trp Asp
            50   55   60

     Asp Asp Asn Val Glu Asp Asp Phe Ser Asn Gln Leu Arg Ala Glu Leu
     65   70   75   80

     Glu Lys His Gly Tyr Lys Met Glu Thr Ser
                    85   90

     <210> 343
     <211> 44
     <212> PRT
     <213> Homo sapien

     <400> 343

     Leu Ala Trp Ser Arg Pro Arg Cys Gly Ser Asp Gly Gly Val Ser Leu
     1   5   10   15

     Arg Lys Ser Glu Gly Ser Asn Phe Ser Ala Tyr Leu Gly Gly Val Gly
                20   25   30

     Arg Gly Gln Ser Arg Cys Gln Arg Lys Ser Ser Arg
                35   40
</pre>

<210> 344
<211> 88
<212> PRT
<213> Homo sapien

<400> 344

Lys Lys Lys Lys Lys Lys His Pro Lys Leu Val Leu Ser Leu Ser Leu
1   5   10   15

Ser Pro Arg Val Glu Ala Leu Ala Gly Met Gly Gly His Lys Leu Gly
            20   25   30

Pro Gln Pro Ala Gln Ser Ala His Ser Asp Leu Gly Gly Lys Leu Gly
        35   40   45

Gly Thr Pro Gly Thr His Tyr His Ala Gly Ala Gly Arg Ser Arg Cys
    50   55   60

Thr Gln Gly Ile Pro Pro Thr Ala Glu Gly Ser Arg Asn Ser Thr Ser
65   70   75   80

Pro Thr Ile Leu His Gln Thr Val
                85

<210> 345
<211> 680
<212> PRT
<213> Homo sapien

<400> 345

Met Ala Leu Glu Ile His Met Ser Asp Pro Met Cys Leu Ile Glu Asn
1   5   10   15

Phe Asn Glu Gln Leu Lys Val Asn Gln Glu Ala Leu Glu Ile Leu Ser
            20   25   30

Ala Ile Thr Gln Pro Val Val Val Val Ala Ile Val Gly Leu Tyr Arg
        35   40   45

Thr Gly Lys Ser Tyr Leu Met Asn Lys Leu Ala Gly Lys Asn Lys Gly
    50   55   60

Phe Ser Val Ala Ser Thr Val Gln Ser His Thr Lys Gly Ile Trp Ile
65   70   75   80

Trp Cys Val Pro His Pro Asn Trp Pro Asn His Thr Leu Val Leu Leu

422

                                85   90   95

Asp Thr Glu Gly Leu Gly Asp Val Glu Lys Ala Asp Asn Lys Asn Asp
          100   105   110

Ile Gln Ile Phe Ala Leu Ala Leu Leu Leu Ser Ser Thr Phe Val Tyr
          115   120   125

Asn Thr Val Asn Lys Ile Asp Gln Gly Ala Ile Asp Leu Leu His Asn
          130   135   140

Val Thr Glu Leu Thr Asp Leu Leu Lys Ala Arg Asn Ser Pro Asp Leu
145   150   155   160

Asp Arg Val Glu Asp Pro Ala Asp Ser Ala Ser Phe Phe Pro Asp Leu
              165   170   175

Val Trp Thr Leu Arg Asp Phe Cys Leu Gly Leu Glu Ile Asp Gly Gln
          180   185   190

Leu Val Thr Pro Asp Glu Tyr Leu Glu Asn Ser Leu Arg Pro Lys Gln
          195   200   205

Gly Ser Asp Gln Arg Val Gln Asn Phe Asn Leu Pro Arg Leu Cys Ile
          210   215   220

Gln Lys Phe Phe Pro Lys Lys Lys Cys Phe Ile Phe Asp Leu Pro Ala
225   230   235   240

His Gln Lys Lys Leu Ala Gln Leu Glu Thr Leu Pro Asp Asp Glu Leu
              245   250   255

Glu Pro Glu Phe Val Gln Gln Val Thr Glu Phe Cys Ser Tyr Ile Phe
              260   265   270

Ser His Ser Met Thr Lys Thr Leu Pro Gly Gly Ile Met Val Asn Gly
          275   280   285

Ser Arg Leu Lys Asn Leu Val Leu Thr Tyr Val Asn Ala Ile Ser Ser
          290   295   300

Gly Asp Leu Pro Cys Ile Glu Asn Ala Val Leu Ala Leu Ala Gln Arg
305   310   315   320

Glu Asn Ser Ala Ala Val Gln Lys Ala Ile Ala His Tyr Asp Gln Gln
              325   330   335

```
Met Gly Gln Lys Val Gln Leu Pro Met Glu Thr Leu Gln Glu Leu Leu
        340             345             350

Asp Leu His Arg Thr Ser Glu Arg Glu Ala Ile Glu Val Phe Met Lys
        355             360             365

Asn Ser Phe Lys Asp Val Asp Gln Ser Phe Gln Lys Glu Leu Glu Thr
        370             375             380

Leu Leu Asp Ala Lys Gln Asn Asp Ile Cys Lys Arg Asn Leu Glu Ala
385             390             395             400

Ser Ser Asp Tyr Cys Ser Ala Leu Leu Lys Asp Ile Phe Gly Pro Leu
            405             410             415

Glu Glu Ala Val Lys Gln Gly Ile Tyr Ser Lys Pro Gly Gly His Asn
            420             425             430

Leu Phe Ile Gln Lys Thr Glu Glu Leu Lys Ala Lys Tyr Tyr Arg Glu
        435             440             445

Pro Arg Lys Gly Ile Gln Ala Glu Glu Val Leu Gln Lys Tyr Leu Lys
        450             455             460

Ser Lys Glu Ser Val Ser His Ala Ile Leu Gln Thr Asp Gln Ala Leu
465             470             475             480

Thr Glu Thr Glu Lys Lys Lys Gly Glu Lys Lys Val Glu Ile Met
            485             490             495

Gln Asp Arg Lys Lys Ser Ile Asn Phe Lys Leu Asn Leu Ala Trp Pro
            500             505             510

Ser Trp Asp Val Lys Leu Glu Gln Glu Trp Gln Arg Cys Phe Leu Ala
        515             520             525

Pro Gln Ala Tyr Leu Thr Gly Met Ile Leu His Cys Gly Tyr Leu Glu
        530             535             540

Gly Lys Asn Asn Pro Trp Glu Phe Tyr Pro Gly Ser Trp Asn Asn His
545             550             555             560

Lys Gln Lys Trp Glu Ala Glu Gly Arg Gly Thr Leu Ile Leu Glu Lys
            565             570             575
```

```
Ile Ile Phe Phe Ser Ser Glu Ala Gln Val Lys Ala Glu Ala Glu Lys
        580                 585                 590


Ala Glu Ala Gln Arg Leu Ala Ala Ile Gln Arg Gln Asn Glu Gln Met
        595                 600                 605


Met Gln Glu Arg Glu Arg Leu His Gln Glu Gln Val Arg Gln Met Glu
    610                 615                 620


Ile Ala Lys Gln Asn Trp Leu Ala Glu Gln Gln Lys Met Gln Glu Gln
625                 630                 635                 640


Gln Met Gln Glu Gln Ala Ala Gln Leu Ser Thr Thr Phe Gln Ala Gln
            645                 650                 655


Asn Arg Ser Leu Leu Ser Glu Leu Gln His Ala Gln Arg Thr Val Asn
        660                 665                 670


Asn Asp Asp Pro Cys Val Leu Leu
        675                 680


<210>  346
<211>  544
<212>  PRT
<213>  Homo sapien

<400>  346

Ile Ile Thr Ser Arg Cys Pro Tyr Leu Ser Ser Gly Lys Ile Ile Leu
1              5                 10                 15


Ala Ser Ala Ala Tyr Lys Ser Gly Asn Gln Asn Ser Thr Tyr Ile Arg
            20                 25                 30


Gln Ser Asn Ile Leu Asp Met Ala Leu Glu Ile His Met Ser Asp Pro
        35                 40                 45


Met Cys Leu Ile Glu Asn Phe Asn Glu Gln Leu Lys Val Asn Gln Glu
    50                 55                 60


Ala Leu Glu Ile Leu Ser Ala Ile Thr Gln Pro Val Val Val Val Ala
65                 70                 75                 80


Ile Val Gly Leu Tyr Arg Thr Gly Lys Ser Tyr Leu Met Asn Lys Leu
            85                 90                 95


Ala Gly Lys Asn Lys Gly Phe Ser Val Ala Ser Thr Val Gln Ser His
```

425

```
                                100                    105                      110

        Thr Lys Gly Ile Trp Ile Trp Cys Val Pro His Pro Asn Trp Pro Asn
                115             120             125

        His Thr Leu Val Leu Leu Asp Thr Glu Gly Leu Gly Asp Val Glu Lys
            130             135             140

        Ala Asp Asn Lys Asn Asp Ile Gln Ile Phe Ala Leu Ala Leu Leu Leu
        145             150             155             160

        Ser Ser Thr Phe Val Tyr Asn Thr Val Asn Lys Ile Asp Gln Gly Ala
                    165             170             175

        Ile Asp Leu Leu His Asn Val Thr Glu Leu Thr Asp Leu Leu Lys Ala
                180             185             190

        Arg Asn Ser Pro Asp Leu Asp Arg Val Glu Asp Pro Ala Asp Ser Ala
                195             200             205

        Ser Phe Phe Pro Asp Leu Val Trp Thr Leu Arg Asp Phe Cys Leu Gly
            210             215             220

        Leu Glu Ile Asp Gly Gln Leu Val Thr Pro Asp Glu Tyr Leu Glu Asn
        225             230             235             240

        Ser Leu Arg Pro Lys Gln Gly Ser Asp Gln Arg Val Gln Asn Phe Asn
                    245             250             255

        Leu Pro Arg Leu Cys Ile Gln Lys Phe Phe Pro Lys Lys Lys Cys Phe
                260             265             270

        Ile Phe Asp Leu Pro Ala His Gln Lys Lys Leu Ala Gln Leu Glu Thr
            275             280             285

        Leu Pro Asp Asp Glu Leu Glu Pro Glu Phe Val Gln Gln Val Thr Glu
        290             295             300

        Phe Cys Ser Tyr Ile Phe Ser His Ser Met Thr Lys Thr Leu Pro Gly
        305             310             315             320

        Gly Ile Met Val Asn Gly Ser Arg Leu Lys Asn Leu Val Leu Thr Tyr
                    325             330             335

        Val Asn Ala Ile Ser Ser Gly Asp Leu Pro Cys Ile Glu Asn Ala Val
                340             345             350
```

```
Leu Ala Leu Ala Gln Arg Glu Asn Ser Ala Ala Val Gln Lys Ala Ile
    355                 360             365

Ala His Tyr Asp Gln Gln Met Gly Gln Lys Val Gln Leu Pro Met Glu
    370             375             380

Thr Leu Gln Glu Leu Leu Asp Leu His Arg Thr Ser Glu Arg Glu Ala
385                 390             395                 400

Ile Glu Val Phe Met Lys Asn Ser Phe Lys Asp Val Asp Gln Ser Phe
            405             410             415

Gln Lys Glu Leu Glu Thr Leu Leu Asp Ala Lys Gln Asn Asp Ile Cys
            420             425             430

Lys Arg Asn Leu Glu Ala Ser Ser Asp Tyr Cys Ser Ala Leu Leu Lys
    435             440             445

Asp Ile Phe Gly Pro Leu Glu Glu Ala Val Lys Gln Gly Ile Tyr Ser
    450             455             460

Lys Pro Gly Gly His Asn Leu Phe Ile Gln Lys Thr Glu Glu Leu Lys
465             470             475             480

Ala Lys Tyr Tyr Arg Glu Pro Arg Lys Gly Ile Gln Ala Glu Glu Val
            485             490             495

Leu Gln Lys Tyr Leu Lys Ser Lys Glu Ser Val Ser His Ala Ile Leu
            500             505             510

Gln Thr Asp Gln Ala Leu Thr Glu Thr Glu Lys Lys Lys Lys Gly Glu
    515             520             525

Lys Lys Val Glu Ile Met Gln Asp Arg Lys Lys Ser Ile Asn Phe Lys
    530             535             540
```

<210> 347
<211> 487
<212> PRT
<213> Homo sapien

<400> 347

```
Met Val Trp Gln Cys Cys Leu Met Leu Leu Glu Arg Arg Ser Val Met
1               5               10              15
```

427

```
Asp Gly Arg Pro Gly Arg Ala Trp Ser Arg Pro Arg Tyr Asn Thr Val
            20              25              30

Asn Lys Ile Asp Gln Gly Ala Ile Asp Leu Leu His Asn Val Thr Glu
            35              40              45

Leu Thr Asp Leu Leu Lys Ala Arg Asn Ser Pro Asp Leu Asp Arg Val
    50              55              60

Glu Asp Pro Ala Asp Ser Ala Ser Phe Phe Pro Asp Leu Val Trp Thr
65              70              75              80

Leu Arg Asp Phe Cys Leu Gly Leu Glu Ile Asp Gly Gln Leu Val Thr
                85              90              95

Pro Asp Glu Tyr Leu Glu Asn Ser Leu Arg Pro Lys Gln Gly Ser Asp
            100             105             110

Gln Arg Val Gln Asn Phe Asn Leu Pro Arg Leu Cys Ile Gln Lys Phe
        115             120             125

Phe Pro Lys Lys Lys Cys Phe Ile Phe Asp Leu Pro Ala His Gln Lys
    130             135             140

Lys Leu Ala Gln Leu Glu Thr Leu Pro Asp Asp Glu Leu Glu Pro Glu
145             150             155             160

Phe Val Gln Gln Val Thr Glu Phe Cys Ser Tyr Ile Phe Ser His Ser
                165             170             175

Met Thr Lys Thr Leu Pro Gly Gly Ile Met Val Asn Gly Ser Arg Leu
            180             185             190

Lys Asn Leu Val Leu Thr Tyr Val Asn Ala Ile Ser Ser Gly Asp Leu
        195             200             205

Pro Cys Ile Glu Asn Ala Val Leu Ala Leu Ala Gln Arg Glu Asn Ser
    210             215             220

Ala Ala Val Gln Lys Ala Ile Ala His Tyr Asp Gln Gln Met Gly Gln
225             230             235             240

Lys Val Gln Leu Pro Met Glu Thr Leu Gln Glu Leu Leu Asp Leu His
            245             250             255

Arg Thr Ser Glu Arg Glu Ala Ile Glu Val Phe Met Lys Asn Ser Phe
```

428

```
                  260                     265                     270

      Lys Asp Val Asp Gln Ser Phe Gln Lys Glu Leu Glu Thr Leu Leu Asp
              275                     280                     285

      Ala Lys Gln Asn Asp Ile Cys Lys Arg Asn Leu Glu Ala Ser Ser Asp
              290                     295                     300

      Tyr Cys Ser Ala Leu Leu Lys Asp Ile Phe Gly Pro Leu Glu Glu Ala
      305                     310                     315                     320

      Val Lys Gln Gly Ile Tyr Ser Lys Pro Gly Gly His Asn Leu Phe Ile
                          325                     330                     335

      Gln Lys Thr Glu Glu Leu Lys Ala Lys Tyr Tyr Arg Glu Pro Arg Lys
                          340                     345                     350

      Gly Ile Gln Ala Glu Glu Val Leu Gln Lys Tyr Leu Lys Ser Lys Glu
                  355                     360                     365

      Ser Val Ser His Ala Ile Leu Gln Thr Asp Gln Ala Leu Thr Glu Thr
          370                     375                     380

      Glu Lys Lys Lys Lys Glu Ala Gln Val Lys Ala Glu Ala Glu Lys Ala
      385                     390                     395                     400

      Glu Ala Gln Arg Leu Ala Ala Ile Gln Arg Gln Asn Glu Gln Met Met
                          405                     410                     415

      Gln Glu Arg Glu Arg Leu His Gln Glu Gln Val Arg Gln Met Glu Ile
                  420                     425                     430

      Ala Lys Gln Asn Trp Leu Ala Glu Gln Gln Lys Met Gln Glu Gln Gln
                  435                     440                     445

      Met Gln Glu Gln Ala Ala Gln Leu Ser Thr Thr Phe Gln Ala Gln Asn
          450                     455                     460

      Arg Ser Leu Leu Ser Glu Leu Gln His Ala Gln Arg Thr Val Asn Asn
      465                     470                     475                     480

      Asp Asp Pro Cys Val Leu Leu
                          485


      <210>    348
      <211>    472
```

<212> PRT
<213> Homo sapien

<400> 348

Trp Ile Gly Arg Pro Gly Arg Ala Trp Ser Arg Pro Arg Tyr Asn Thr
1   5   10   15

Val Asn Lys Ile Asp Gln Gly Ala Ile Asp Leu Leu His Asn Val Thr
            20   25   30

Glu Leu Thr Asp Leu Leu Lys Ala Arg Asn Ser Pro Asp Leu Asp Arg
        35   40   45

Val Glu Asp Pro Ala Asp Ser Ala Ser Phe Phe Pro Asp Leu Val Trp
    50   55   60

Thr Leu Arg Asp Phe Cys Leu Gly Leu Glu Ile Asp Gly Gln Leu Val
65   70   75   80

Thr Pro Asp Glu Tyr Leu Glu Asn Ser Leu Arg Pro Lys Gln Gly Ser
                85   90   95

Asp Gln Arg Val Gln Asn Phe Asn Leu Pro Arg Leu Cys Ile Gln Lys
            100   105   110

Phe Phe Pro Lys Lys Lys Cys Phe Ile Phe Asp Leu Pro Ala His Gln
        115   120   125

Lys Lys Leu Ala Gln Leu Glu Thr Leu Pro Asp Asp Glu Leu Glu Pro
    130   135   140

Glu Phe Val Gln Gln Val Thr Glu Phe Cys Ser Tyr Ile Phe Ser His
145   150   155   160

Ser Met Thr Lys Thr Leu Pro Gly Gly Ile Met Val Asn Gly Ser Arg
                165   170   175

Leu Lys Asn Leu Val Leu Thr Tyr Val Asn Ala Ile Ser Ser Gly Asp
            180   185   190

Leu Pro Cys Ile Glu Asn Ala Val Leu Ala Leu Ala Gln Arg Glu Asn
        195   200   205

Ser Ala Ala Val Gln Lys Ala Ile Ala His Tyr Asp Gln Gln Met Gly
    210   215   220

430

```
Gln Lys Val Gln Leu Pro Met Glu Thr Leu Gln Glu Leu Leu Asp Leu
225                 230             235                 240


His Arg Thr Ser Glu Arg Glu Ala Ile Glu Val Phe Met Lys Asn Ser
                245                 250                 255


Phe Lys Asp Val Asp Gln Ser Phe Gln Lys Glu Leu Glu Thr Leu Leu
                260                 265                 270


Asp Ala Lys Gln Asn Asp Ile Cys Lys Arg Asn Leu Glu Ala Ser Ser
                275                 280                 285


Asp Tyr Cys Ser Ala Leu Leu Lys Asp Ile Phe Gly Pro Leu Glu Glu
        290                 295                 300


Ala Val Lys Gln Gly Ile Tyr Ser Lys Pro Gly Gly His Asn Leu Phe
305                 310                 315                 320


Ile Gln Lys Thr Glu Glu Leu Lys Ala Lys Tyr Tyr Arg Glu Pro Arg
                325                 330                 335


Lys Gly Ile Gln Ala Glu Glu Val Leu Gln Lys Tyr Leu Lys Ser Lys
                340                 345                 350


Glu Ser Val Ser His Ala Ile Leu Gln Thr Asp Gln Ala Leu Thr Glu
        355                 360                 365


Thr Glu Lys Lys Lys Lys Glu Ala Gln Val Lys Ala Glu Ala Glu Lys
        370                 375                 380


Ala Glu Ala Gln Arg Leu Ala Ala Ile Gln Arg Gln Asn Glu Gln Met
385                 390                 395                 400


Met Gln Glu Arg Glu Arg Leu His Gln Glu Gln Val Arg Gln Met Glu
                405                 410                 415


Ile Ala Lys Gln Asn Trp Leu Ala Glu Gln Gln Lys Met Gln Glu Gln
                420                 425                 430


Gln Met Gln Glu Gln Ala Ala Gln Leu Ser Thr Thr Phe Gln Ala Gln
                435                 440                 445


Asn Arg Ser Leu Leu Ser Glu Leu Gln His Ala Gln Arg Thr Val Asn
        450                 455                 460


Asn Asp Asp Pro Cys Val Leu Leu
```

431

465   470

<210> 349
<211> 401
<212> PRT
<213> Homo sapien

<400> 349

Met Gly Gly Asp Leu Val Leu Gly Leu Gly Ala Leu Arg Arg Arg Lys
1   5   10   15

Arg Leu Leu Glu Gln Glu Lys Ser Leu Ala Gly Trp Ala Leu Val Leu
                20   25   30

Ala Gly Thr Gly Ile Gly Leu Met Val Leu His Ala Glu Met Leu Trp
            35   40   45

Phe Gly Gly Cys Ser Trp Ala Leu Tyr Leu Phe Leu Val Lys Cys Thr
        50   55   60

Ile Ser Ile Ser Thr Phe Leu Leu Leu Cys Leu Ile Val Ala Phe His
65   70   75   80

Ala Lys Glu Val Gln Leu Phe Met Thr Asp Asn Gly Leu Arg Asp Trp
                85   90   95

Arg Val Ala Leu Thr Gly Arg Gln Ala Ala Gln Ile Val Leu Glu Leu
            100   105   110

Val Val Cys Gly Leu His Pro Ala Pro Val Arg Gly Pro Pro Cys Val
            115   120   125

Gln Asp Leu Gly Ala Pro Leu Thr Ser Pro Gln Pro Trp Pro Gly Phe
    130   135   140

Leu Gly Gln Gly Glu Ala Leu Leu Ser Leu Ala Met Leu Leu Arg Leu
145   150   155   160

Tyr Leu Val Pro Arg Ala Val Leu Leu Arg Ser Gly Val Leu Leu Asn
                165   170   175

Ala Ser Tyr Arg Ser Ile Gly Ala Leu Asn Gln Val Arg Phe Arg His
            180   185   190

Trp Phe Val Ala Lys Leu Tyr Met Asn Thr His Pro Gly Arg Leu Leu
            195   200   205

```
Leu Gly Leu Thr Leu Gly Leu Trp Leu Thr Thr Ala Trp Val Leu Ser
    210             215             220

Val Ala Glu Arg Gln Ala Val Asn Ala Thr Gly His Leu Ser Asp Thr
225             230             235             240

Leu Trp Leu Ile Pro Ile Thr Phe Leu Thr Ile Gly Tyr Gly Asp Val
            245             250             255

Val Pro Gly Thr Met Trp Gly Lys Ile Val Cys Leu Cys Thr Gly Val
            260             265             270

Met Gly Val Cys Cys Thr Ala Leu Leu Val Ala Val Val Ala Arg Lys
        275             280             285

Leu Glu Phe Asn Lys Ala Glu Lys His Val His Asn Phe Met Met Asp
    290             295             300

Ile Gln Tyr Thr Lys Glu Met Lys Glu Ser Ala Ala Arg Val Leu Gln
305             310             315             320

Glu Ala Trp Met Phe Tyr Lys His Thr Arg Arg Lys Glu Ser His Ala
            325             330             335

Ala Arg Arg His Gln Arg Lys Leu Leu Ala Ala Ile Asn Ala Arg Ala
        340             345             350

Ala Leu Tyr Ala His Val Ser Met Cys Thr His Val Gln Val Thr Ser
        355             360             365

Leu His Gly Cys Val Cys Ala Cys Pro Cys Leu Ser Arg Ser Gly His
    370             375             380

Pro Gly Val Val Ser Leu Asn Ile Gln Val Ser Pro Gly Ser Asp Arg
385             390             395             400

Ala


<210>   350
<211>   134
<212>   PRT
<213>   Homo sapien

<400>   350

Met Ala Gly Arg Gln Gly Arg Leu Phe Ser Ser Ala Leu Ala Leu Ser
```

433

```
1                    5                    10                   15

        Gly Gly Lys Asp Ser Val Arg Gly Trp Thr Gly Ser Glu Gly Arg Trp
                    20                   25                   30

        Cys Thr Leu Ser Pro Ser Leu Thr Leu Asp Gly Leu Leu Pro Leu Cys
                    35                   40                   45

        Leu Val Ser Leu Ser Leu Ser Ala Cys Pro Gly His Ile Val Trp Leu
                    50                   55                   60

        Ser Ile Gln Cys Leu Cys Leu Asn Ala Leu Leu Pro Pro Gly Leu Gly
        65                   70                   75                   80

        Ala Arg Lys His Leu Pro Pro Val Ser His Phe Cys Pro Pro Val Ser
                    85                   90                   95

        Val Cys Thr Ser Val Cys Pro Thr Leu Thr Leu Pro Leu Pro Gly Leu
                    100                  105                  110

        Pro Leu His Gln Ser Leu Cys Leu Ser Arg Thr His Glu Glu Glu Pro
                    115                  120                  125

        Gly Tyr Phe Pro Gln Tyr
                    130
```

```
<210>   351
<211>   161
<212>   PRT
<213>   Homo sapien

<400>   351

        Gly Gly Trp Asp Leu Gly Arg Lys Ala Ser Trp Arg Lys Gly Ser Cys
        1                    5                    10                   15

        Gly Gln His Pro Met Trp Leu Arg Gly Arg Gly Met Ala Gly Arg Gln
                    20                   25                   30

        Gly Arg Leu Phe Ser Ser Ala Leu Ala Leu Ser Gly Gly Lys Asp Ser
                    35                   40                   45

        Val Arg Gly Trp Thr Gly Ser Glu Gly Arg Trp Cys Thr Leu Ser Pro
                    50                   55                   60

        Ser Leu Thr Leu Asp Gly Leu Leu Pro Leu Cys Leu Val Ser Leu Ser
        65                   70                   75                   80
```

```
Leu Ser Ala Cys Pro Gly His Ile Val Trp Leu Ser Ile Gln Cys Leu
                85              90                  95


Cys Leu Asn Ala Leu Leu Pro Pro Gly Leu Gly Ala Arg Lys His Leu
            100             105                 110


Pro Pro Val Ser His Phe Cys Pro Pro Val Ser Val Cys Thr Ser Val
        115             120                 125


Cys Pro Thr Leu Thr Leu Pro Leu Pro Gly Leu Pro Leu His Gln Ser
    130             135                 140


Leu Cys Leu Ser Arg Thr His Glu Glu Glu Pro Gly Tyr Phe Pro Gln
145             150                 155                 160


Tyr



<210>  352
<211>  427
<212>  PRT
<213>  Homo sapien

<400>  352

Met Gly Gly Asp Leu Val Leu Gly Leu Gly Ala Leu Arg Arg Arg Lys
1               5               10                  15


Arg Leu Leu Glu Gln Glu Lys Ser Leu Ala Gly Trp Ala Leu Val Leu
            20              25                  30


Ala Gly Thr Gly Ile Gly Leu Met Val Leu His Ala Glu Met Leu Trp
        35              40                  45


Phe Gly Gly Cys Ser Trp Ala Leu Tyr Leu Phe Leu Val Lys Cys Thr
    50              55                  60


Ile Ser Ile Ser Thr Phe Leu Leu Leu Cys Leu Ile Val Ala Phe His
65              70              75                  80


Ala Lys Glu Val Gln Leu Phe Met Thr Asp Asn Gly Leu Arg Asp Trp
                85              90                  95


Arg Val Ala Leu Thr Gly Arg Gln Ala Ala Gln Ile Val Leu Glu Leu
            100             105                 110


Val Val Cys Gly Leu His Pro Ala Pro Val Arg Gly Pro Pro Cys Val
```

435

```
              115                    120                    125

   Gln Asp Leu Gly Ala Pro Leu Thr Ser Pro Gln Pro Trp Pro Gly Phe
        130                135                140

   Leu Gly Gln Gly Glu Ala Leu Leu Ser Leu Ala Met Leu Leu Arg Leu
   145                150                155                160

   Tyr Leu Val Pro Arg Ala Val Leu Leu Arg Ser Gly Val Leu Leu Asn
                 165                170                175

   Ala Ser Tyr Arg Ser Ile Gly Ala Leu Asn Gln Val Arg Phe Arg His
                180                185                190

   Trp Phe Val Ala Lys Leu Tyr Met Asn Thr His Pro Gly Arg Leu Leu
                 195                200                205

   Leu Gly Leu Thr Leu Gly Leu Trp Leu Thr Thr Ala Trp Val Leu Ser
        210                215                220

   Val Ala Glu Arg Gln Ala Val Asn Ala Thr Gly His Leu Ser Asp Thr
   225                230                235                240

   Leu Trp Leu Ile Pro Ile Thr Phe Leu Thr Ile Gly Tyr Gly Asp Val
                 245                250                255

   Val Pro Gly Thr Met Trp Gly Lys Ile Val Cys Leu Cys Thr Gly Val
                 260                265                270

   Met Gly Val Cys Cys Thr Ala Leu Leu Val Ala Val Val Ala Arg Lys
                 275                280                285

   Leu Glu Phe Asn Lys Ala Glu Lys His Val His Asn Phe Met Met Asp
        290                295                300

   Ile Gln Tyr Thr Lys Glu Met Lys Glu Ser Ala Ala Arg Val Leu Gln
   305                310                315                320

   Glu Ala Trp Met Phe Tyr Lys His Thr Arg Arg Lys Glu Ser His Ala
                 325                330                335

   Ala Arg Arg His Gln Arg Lys Leu Leu Ala Ala Ile Asn Ala Phe Arg
                 340                345                350

   Gln Val Arg Leu Lys His Arg Lys Leu Arg Glu Gln Val Asn Ser Met
                 355                360                365
```

```
Val Asp Ile Ser Lys Met His Met Ile Leu Tyr Asp Leu Gln Gln Asn
    370             375             380

Leu Ser Ser Ser His Arg Ala Leu Glu Lys Gln Ile Asp Thr Leu Ala
385             390             395                     400

Gly Lys Leu Asp Ala Leu Thr Glu Leu Leu Ser Thr Ala Leu Gly Pro
                405             410                 415

Arg Gln Leu Pro Glu Pro Ser Gln Gln Ser Lys
            420             425
```

<210> 353
<211> 66
<212> PRT
<213> Homo sapien

<400> 353

```
Met His Ala Arg Ala Ala Gln Cys Asp Gly Cys Gly Arg Gly Glu Val
1               5               10                  15

Lys Ala Met Ile Glu Thr Lys Thr Gly Ile Ile Pro Glu Thr Gln Ile
                20              25              30

Val Thr Cys Asn Gly Lys Arg Leu Glu Asp Gly Lys Met Met Ala Asp
            35              40              45

Tyr Gly Ile Arg Lys Gly Asn Leu Leu Phe Leu Ala Ser Tyr Cys Ile
    50              55              60

Gly Gly
65
```

<210> 354
<211> 74
<212> PRT
<213> Homo sapien

<400> 354

```
Asp Pro Asp Cys Asp Leu Gln Trp Lys Glu Thr Gly Arg Trp Glu Asp
1               5               10                  15

Asp Gly Arg Leu Arg His Gln Lys Gly Gln Leu Thr Leu Pro Gly Ile
            20              25              30

Leu Leu Tyr Trp Arg Val Thr Thr Leu Gly Met Gly Cys Trp Gln Gly
```

                35   40   45

```
Ser Lys Ser Leu Phe Leu Leu Ile Ser Tyr Ser Thr Asn Thr Ser Ser
    50                      55                  60
```

```
Asp Asp Phe Pro Lys Leu Met Arg Met Arg
65                  70
```

<210> 355
<211> 535
<212> PRT
<213> Homo sapien

<400> 355

```
Met Pro Gly Trp Ile Phe Ser Val Gly Ser Ser Ile Ala Arg Arg Ala
1               5               10              15
```

```
Phe Leu Thr Trp Gln Lys Gln Ala His Gly Pro Leu Pro Leu Glu Cys
            20              25              30
```

```
Ile Cys Leu Thr Cys Leu Gly Thr Ala Val Gln Glu His Leu Val Trp
        35              40              45
```

```
Pro Gly Gly Trp Glu Gly Thr Thr Cys Asn Ile Ala Arg Asn Ser Ser
    50              55              60
```

```
Cys Leu Pro Asn Pro Cys His Asn Gly Gly Thr Cys Val Val Asn Gly
65              70              75              80
```

```
Glu Ser Phe Thr Cys Val Cys Lys Glu Gly Trp Glu Gly Pro Ile Cys
                85              90              95
```

```
Ala Gln Asn Thr Asn Asp Cys Ser Pro His Pro Cys Tyr Asn Ser Gly
            100             105             110
```

```
Thr Cys Val Asp Gly Asp Asn Trp Tyr Arg Cys Glu Cys Ala Pro Gly
        115             120             125
```

```
Phe Ala Gly Pro Asp Cys Arg Ile Asn Ile Asn Glu Cys Gln Ser Ser
    130             135             140
```

```
Pro Cys Ala Phe Gly Ala Thr Cys Val Asp Glu Ile Asn Gly Tyr Arg
145             150             155             160
```

```
Cys Val Cys Pro Pro Gly His Ser Gly Ala Lys Cys Gln Glu Val Ser
                165             170             175
```

438

```
Gly Arg Pro Cys Ile Thr Met Gly Ser Val Ile Pro Asp Gly Ala Lys
        180             185             190


Trp Asp Asp Asp Cys Asn Thr Cys Gln Cys Leu Asn Gly Arg Ile Ala
        195             200             205


Cys Ser Lys Val Trp Cys Gly Pro Arg Pro Cys Leu Leu His Lys Gly
210             215             220


His Ser Glu Cys Pro Ser Gly Gln Ser Cys Ile Pro Ile Leu Asp Asp
225             230             235             240


Gln Cys Phe Val His Pro Cys Thr Gly Val Gly Glu Cys Arg Ser Ser
            245             250             255


Ser Leu Gln Pro Val Lys Thr Lys Cys Thr Ser Asp Ser Tyr Tyr Gln
        260             265             270


Asp Asn Cys Ala Asn Ile Thr Phe Thr Phe Asn Lys Glu Met Met Ser
        275             280             285


Pro Gly Leu Thr Thr Glu His Ile Cys Ser Glu Leu Arg Asn Leu Asn
        290             295             300


Ile Leu Lys Asn Val Ser Ala Glu Tyr Ser Ile Tyr Ile Ala Cys Glu
305             310             315             320


Pro Ser Pro Ser Ala Asn Asn Glu Ile His Val Ala Ile Ser Ala Glu
            325             330             335


Asp Ile Arg Asp Asp Gly Asn Pro Ile Lys Glu Ile Thr Asp Lys Ile
        340             345             350


Ile Asp Leu Val Ser Lys Arg Asp Gly Asn Ser Ser Leu Ile Ala Ala
        355             360             365


Val Ala Glu Val Arg Val Gln Arg Arg Pro Leu Lys Asn Arg Thr Asp
370             375             380


Phe Leu Val Pro Leu Leu Ser Ser Val Leu Thr Val Ala Trp Ile Cys
385             390             395             400


Cys Leu Val Thr Ala Phe Tyr Trp Cys Leu Arg Lys Arg Arg Lys Pro
            405             410             415
```

```
Gly Ser His Thr His Ser Ala Ser Glu Asp Asn Thr Thr Asn Asn Val
        420             425                 430


Arg Glu Gln Leu Asn Gln Ile Lys Asn Pro Ile Glu Lys His Gly Ala
        435             440                 445


Asn Thr Val Pro Ile Lys Asp Tyr Glu Asn Lys Asn Ser Lys Met Ser
    450             455                 460


Lys Ile Arg Thr His Asn Ser Glu Val Glu Glu Asp Asp Met Asp Lys
465             470              475                 480


His Gln Gln Lys Ala Arg Phe Ala Lys Gln Pro Ala Tyr Thr Leu Val
                485             490                 495


Asp Arg Glu Glu Lys Pro Pro Asn Gly Thr Pro Thr Lys His Pro Asn
            500             505                 510


Trp Thr Asn Lys Gln Asp Asn Arg Asp Leu Glu Ser Ala Gln Ser Leu
        515             520                 525


Asn Arg Met Glu Tyr Ile Val
    530             535
```

```
<210>  356
<211>  209
<212>  PRT
<213>  Homo sapien

<400>  356
```

```
Met Leu Tyr Ile Tyr Gln His Thr Thr Ser Ala Ser Asn Lys Lys Glu
1               5               10                  15


Leu Glu Leu Asp Ile Cys Gln Arg Leu Pro Glu Ile Arg Trp Lys Leu
            20              25                  30


Phe Leu Leu Ile Phe Leu Ile Arg Phe Tyr Met Arg Thr Asn Pro Phe
        35              40                  45


Tyr Pro Glu Val Glu Leu Asn Phe Ile Ser Val Phe Trp Pro Gln Leu
    50              55                  60


Pro Asn Gly Leu Glu Ala Ala Tyr Glu Phe Ala Asp Arg Asp Glu Val
65              70              75                  80


Arg Phe Phe Lys Gly Asn Lys Tyr Trp Ala Val Gln Gly Gln Asn Val
                85              90                  95
```

Leu His Gly Tyr Pro Lys Asp Ile Tyr Ser Ser Phe Gly Phe Pro Arg
            100   105   110

Thr Val Lys His Ile Asp Ala Ala Leu Ser Glu Glu Asn Thr Gly Lys
        115   120   125

Thr Tyr Phe Phe Val Ala Asn Lys Tyr Trp Arg Tyr Asp Glu Tyr Lys
    130   135   140

Arg Ser Met Asp Pro Gly Tyr Pro Lys Met Ile Ala His Asp Phe Pro
145   150   155   160

Gly Ile Gly His Lys Val Asp Ala Val Phe Met Lys Asp Gly Phe Phe
                165   170   175

Tyr Phe Phe His Gly Thr Arg Gln Tyr Lys Phe Asp Pro Lys Thr Lys
            180   185   190

Arg Ile Leu Thr Leu Gln Lys Ala Asn Ser Trp Phe Asn Cys Arg Lys
        195   200   205

Asn

<210> 357
<211> 640
<212> PRT
<213> Homo sapien

<400> 357

Met Lys Gly His Arg Gly Phe Asp Gly Arg Asn Gly Glu Lys Gly Glu
1   5   10   15

Thr Gly Ala Pro Gly Leu Lys Gly Glu Asn Gly Leu Pro Gly Glu Asn
            20   25   30

Gly Ala Pro Gly Pro Met Gly Pro Arg Gly Ala Pro Gly Glu Arg Gly
        35   40   45

Arg Pro Gly Leu Pro Gly Ala Ala Gly Ala Arg Gly Asn Asp Gly Ala
    50   55   60

Arg Gly Ser Asp Gly Gln Pro Gly Pro Pro Gly Pro Pro Gly Thr Ala
65   70   75   80

Gly Phe Pro Gly Ser Pro Gly Ala Lys Gly Glu Val Gly Pro Ala Gly
                85   90   95

Ser Pro Gly Ser Asn Gly Ala Pro Gly Gln Arg Gly Glu Pro Gly Pro
                100   105   110

Gln Gly His Ala Gly Ala Gln Gly Pro Pro Gly Pro Pro Gly Ile Asn
        115   120   125

Gly Ser Pro Gly Gly Lys Gly Glu Met Gly Pro Ala Gly Ile Pro Gly
    130   135   140

Ala Pro Gly Leu Met Gly Ala Arg Gly Pro Pro Gly Pro Ala Gly Ala
145   150   155   160

Asn Gly Ala Pro Gly Leu Arg Gly Gly Ala Gly Glu Pro Gly Lys Asn
                165   170   175

Gly Ala Lys Gly Glu Pro Gly Pro Arg Gly Glu Arg Gly Glu Ala Gly
            180   185   190

Ile Pro Gly Val Pro Gly Ala Lys Gly Glu Asp Gly Lys Asp Gly Ser
        195   200   205

Pro Gly Glu Pro Gly Ala Asn Gly Leu Pro Gly Ala Ala Gly Glu Arg
    210   215   220

Gly Ala Pro Gly Phe Arg Gly Pro Ala Gly Pro Asn Gly Ile Pro Gly
225   230   235   240

Glu Lys Gly Pro Ala Gly Glu Arg Gly Ala Pro Gly Pro Ala Gly Pro
                245   250   255

Arg Gly Ala Ala Gly Glu Pro Gly Arg Asp Gly Val Pro Gly Gly Pro
            260   265   270

Gly Met Arg Gly Met Pro Gly Ser Pro Gly Gly Pro Gly Ser Asp Gly
        275   280   285

Lys Pro Gly Pro Pro Gly Ser Gln Gly Glu Ser Gly Arg Pro Gly Pro
    290   295   300

Pro Gly Pro Ser Gly Pro Arg Gly Gln Pro Gly Val Met Gly Phe Pro
305   310   315   320

Gly Pro Lys Gly Asn Asp Gly Ala Pro Gly Lys Asn Gly Glu Arg Gly

442

```
              325                    330                    335

Gly Pro Gly Gly Pro Gly Pro Gln Gly Pro Pro Gly Lys Asn Gly Glu
            340                 345                 350

Thr Gly Pro Gln Gly Pro Pro Gly Pro Thr Gly Pro Gly Gly Asp Lys
        355             360                 365

Gly Asp Thr Gly Pro Pro Gly Pro Gln Gly Leu Gln Gly Leu Pro Gly
    370             375                 380

Thr Gly Gly Pro Pro Gly Glu Asn Gly Lys Pro Gly Glu Pro Gly Pro
385             390                 395                 400

Lys Gly Asp Ala Gly Ala Pro Gly Ala Pro Gly Gly Lys Gly Asp Ala
            405                 410                 415

Gly Ala Pro Gly Glu Arg Gly Pro Pro Gly Leu Ala Gly Ala Pro Gly
            420                 425                 430

Leu Arg Gly Gly Ala Gly Pro Pro Gly Pro Glu Gly Gly Lys Gly Ala
        435             440                 445

Ala Gly Pro Pro Gly Pro Pro Gly Ala Ala Gly Thr Pro Gly Leu Gln
    450             455                 460

Gly Met Pro Gly Glu Arg Gly Gly Leu Gly Ser Pro Trp Ser Ser Gln
465             470                 475                 480

Arg Trp Phe Arg Leu Gln Leu Pro Ala Pro Ala Thr Ser Arg Glu Gly
            485             490                 495

Ser Arg Gly Gly Arg Tyr Tyr Arg Ala Asp Asp Ala Asn Val Val Arg
   •        500             505                 510

Asp Arg Asp Leu Glu Val Asp Thr Thr Leu Lys Ser Leu Ser Gln Gln
        515             520                 525

Ile Glu Asn Ile Arg Ser Pro Glu Gly Ser Arg Lys Asn Pro Ala Arg
    530             535                 540

Thr Cys Arg Asp Leu Lys Met Cys His Ser Asp Trp Lys Ser Gly Glu
545             550                 555                 560

Tyr Trp Ile Asp Pro Asn Gln Gly Cys Asn Leu Asp Ala Ile Lys Val
            565                 570                 575
```

```
Phe Cys Asn Met Glu Thr Gly Glu Thr Cys Val Tyr Pro Thr Gln Pro
            580                 585             590

Ser Val Ala Gln Lys Asn Trp Tyr Ile Asn Lys Asn Pro Lys Asp Lys
            595                 600             605

Arg His Val Trp Phe Gly Glu Ser Met Thr Asp Gly Ile Pro Phe Gln
            610             615             620

Phe Gly Gly Gln Gly Phe Asp Pro Ser Asp Val Ala Ile Gln Leu Thr
625                 630             635                 640
```

```
<210>   358
<211>   567
<212>   PRT
<213>   Homo sapien

<400>   358
```

```
Gln Gly Pro Pro Gly Glu Pro Gly Gln Ala Gly Pro Ser Gly Pro Pro
1               5               10              15

Gly Pro Pro Gly Ala Ile Gly Pro Ser Gly Pro Ala Gly Lys Asp Gly
            20              25              30

Glu Ser Gly Arg Pro Gly Arg Pro Gly Glu Arg Gly Leu Pro Gly Pro
            35              40              45

Pro Gly Ile Lys Gly Pro Ala Gly Ile Pro Gly Phe Pro Gly Met Lys
    50              55              60

Gly His Arg Gly Phe Asp Gly Arg Asn Gly Glu Lys Gly Glu Thr Gly
65              70              75              80

Ala Pro Gly Leu Lys Gly Glu Asn Gly Leu Pro Gly Glu Asn Gly Ala
            85              90              95

Pro Gly Pro Met Gly Pro Arg Gly Ala Pro Gly Glu Arg Gly Arg Pro
            100             105             110

Gly Leu Pro Gly Ala Ala Gly Ala Arg Gly Asn Asp Gly Ala Arg Gly
            115             120             125

Ser Asp Gly Gln Pro Gly Pro Pro Gly Pro Pro Gly Thr Ala Gly Phe
            130             135             140
```

444

Pro Gly Ser Pro Gly Ala Lys Gly Glu Val Gly Pro Ala Gly Ser Pro
145   150   155   160

Gly Ser Asn Gly Ala Pro Gly Gln Arg Gly Glu Pro Gly Pro Gln Gly
              165   170   175

His Ala Gly Ala Gln Gly Pro Pro Gly Pro Pro Gly Ile Asn Gly Ser
              180   185   190

Pro Gly Gly Lys Gly Glu Met Gly Pro Ala Gly Ile Pro Gly Ala Pro
              195   200   205

Gly Leu Met Gly Ala Arg Gly Pro Pro Gly Pro Ala Gly Ala Asn Gly
              210   215   220

Ala Pro Gly Leu Arg Gly Gly Ala Gly Glu Pro Gly Lys Asn Gly Ala
225   230   235   240

Lys Gly Glu Pro Gly Pro Arg Gly Glu Arg Gly Glu Ala Gly Ile Pro
              245   250   255

Gly Val Pro Gly Ala Lys Gly Glu Asp Gly Lys Asp Gly Ser Pro Gly
              260   265   270

Glu Pro Gly Ala Asn Gly Leu Pro Gly Ala Ala Gly Glu Arg Gly Ala
              275   280   285

Pro Gly Phe Arg Gly Pro Ala Gly Pro Asn Gly Ile Pro Gly Glu Lys
              290   295   300

Gly Pro Ala Gly Glu Arg Gly Ala Pro Gly Pro Ala Gly Pro Arg Gly
305   310   315   320

Ala Ala Gly Glu Pro Gly Arg Asp Gly Val Pro Gly Gly Pro Gly Met
              325   330   335

Arg Gly Met Pro Gly Ser Pro Gly Gly Pro Gly Ser Asp Gly Lys Pro
              340   345   350

Gly Pro Pro Gly Ser Gln Gly Glu Ser Gly Arg Pro Gly Pro Pro Gly
              355   360   365

Pro Ser Gly Pro Arg Gly Gln Pro Gly Val Met Gly Phe Pro Gly Pro
370   375   380

Lys Gly Asn Asp Gly Ala Pro Gly Lys Asn Gly Glu Arg Gly Gly Pro

445

```
      385                    390                    395                    400

Gly Gly Pro Gly Pro Gln Gly Pro Pro Gly Lys Asn Gly Glu Thr Gly
             405                    410                    415

Pro Gln Gly Pro Pro Gly Pro Thr Gly Pro Gly Gly Asp Lys Gly Asp
             420                    425                    430

Thr Gly Pro Pro Gly Pro Gln Gly Leu Gln Gly Leu Pro Gly Thr Gly
             435                    440                    445

Gly Pro Pro Gly Glu Asn Gly Lys Pro Gly Glu Pro Gly Pro Lys Gly
    450                    455                    460

Asp Ala Gly Ala Pro Gly Ala Pro Gly Gly Lys Gly Asp Ala Gly Ala
465                    470                    475                    480

Pro Gly Glu Arg Gly Pro Pro Gly Leu Ala Gly Ala Pro Gly Leu Arg
             485                    490                    495

Gly Gly Ala Gly Pro Pro Gly Pro Glu Gly Gly Lys Gly Ala Ala Gly
             500                    505                    510

Pro Pro Gly Pro Pro Gly Ala Ala Gly Thr Pro Gly Leu Gln Gly Met
             515                    520                    525

Pro Gly Glu Arg Gly Gly Leu Gly Ser Pro Trp Ser Ser Gln Arg Trp
    530                    535                    540

Phe Arg Leu Gln Leu Pro Ala Pro Ala Thr Ser Arg Glu Gly Ser Arg
545                    550                    555                    560

Trp Trp Pro Leu Leu Pro Gly
                565
```

<210> 359
<211> 156
<212> PRT
<213> Homo sapien

<400> 359

```
Lys Leu Arg Glu Val Ala Arg Leu Gly Gly Val Val Ser Ile Glu Asp
1               5               10              15

Pro Phe Asp Gln Asp Asp Trp Gly Ala Trp Gln Lys Phe Thr Ala Ser
             20              25              30
```

```
Ala Gly Ile Gln Val Val Gly Asp Asp Leu Thr Val Thr Asn Pro Lys
        35                  40              45


Arg Ile Ala Lys Ala Val Asn Glu Lys Ser Cys Asn Cys Leu Leu Leu
    50                  55              60


Lys Val Asn Gln Ile Gly Ser Val Thr Glu Ser Leu Gln Ala Cys Lys
65              70              75                      80


Leu Ala Gln Ala Asn Gly Trp Gly Val Met Val Ser His Arg Ser Gly
            85              90              95


Glu Thr Glu Asp Thr Phe Ile Ala Asp Leu Val Val Gly Leu Cys Thr
            100             105             110


Gly Gln Ile Lys Thr Gly Ala Pro Cys Arg Ser Glu Arg Leu Ala Lys
        115             120             125


Tyr Asn Gln Leu Leu Arg Ile Glu Glu Glu Leu Gly Ser Lys Ala Lys
    130             135             140


Phe Ala Gly Arg Asn Phe Arg Asn Pro Leu Ala Lys
145             150             155


<210>   360
<211>   108
<212>   PRT
<213>   Homo sapien

<400>   360

Met Ile Arg Leu Ala Ile Trp Gly Arg Val Ser Leu Arg Thr His Ser
1               5               10              15


Pro Trp Pro Pro Cys Phe Gln Pro His Ser Trp Pro Cys Pro Val Leu
            20              25              30


Ser Ser Leu Gly Gly Thr Cys Thr Cys Arg Phe Met Ala Gly Lys Pro
        35              40              45


Ala Val Thr His Asp Val Asp Gly Ser Ser Ala Pro Pro Cys Gly Gln
    50              55              60


Glu Ser Trp Cys Val Asp Ser Gly Val Pro Glu Pro Ala Cys Ser Gly
65              70              75                      80


Ser Arg Val Pro Met Leu Ala Ser Ile Ala Val Cys Ser Gln Ser Ala
```

447

```
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Lys Tyr Ser Phe Thr Val Arg Thr Gly Thr Gln Ala
            100   105

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Gly Met Ser Asp Gly Ser Pro Asp Glu Trp Arg Gly Gly Leu Thr Gly
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Ala Cys Pro Gly Gly Gly Lys Trp Val Gly Leu Ala Leu Ala Arg Gln
            20   25   30

Glu Val Gly Ala Gly Gly Ala Asp Ser Ile Cys Gly Tyr Pro Glu His
            35   40   45

Gly Asp Leu Ala Gly Phe Thr Phe Thr Ser Val Ser Ala Ala Pro Ser
    50   55   60

Ala Ser Ser Pro Arg Arg Arg Asp Pro Val Ala Arg Ser Ser Pro Cys
65   70   75   80

Leu Phe Ser Arg Ser Met Pro Gly Arg Ser Leu Thr Leu Ala Gly Ile
            85   90   95

Pro Leu Leu Arg Leu Ile Ser Ser Pro Gln Lys Val Ser Ser Glu Leu
            100   105   110

Leu Cys Pro Val Val Leu Gln Leu Val Ser Met Arg Pro
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ttgaaagcat cttacagggc caca                                       24


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